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ABSTRACT

Contents of this issue are as follows: "Suggestopedia: The Use of Music and Suggestion in Learning and Hypermnesia:" by Elizabeth Risova Philipov; "A Two Year Evaluation of the Suggestive-Accelerative Learning and Teaching (SALT) Method in Central Iowa Public Schools" by D.H. Schuster and R.A. Prichard; "Improving Lecturer Performance Through Confidence Building" by H.E. Stanton; "Teaching French Composition Through Suggestopedia" by J.G. Lemyze; and selected abstracts. In addition to providing background information on suggestopedia, the first article reports on experimentation at the University of California at San Diego, where students learned the Bulgarian language through the suggestopedic method and were compared to students learning first year Russian with an advanced method. The second article reports on the use of the SALT method in Central Iowa Public Schools and concludes that there was much support for the method in terms of accelerating achievement but not in terms of affecting student attitudes. The method appeared to be equally appropriate for elementary as well as junior high school students. In the third article an experiment using relaxation training, positive suggestion, and success imagery to improve lecturer performance is described. The fourth article describes adapting the suggestopedic principles to teaching composition to McGill University students who already had a fair command of spoken and written French. (SW)

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THE JOURNAL OF SUGGESTIVE-ACCELERATIVE LEARNING AND TEACHING

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Suggestopedia: The Use of Music and Suggestion in Learning and Hypermnesia[1]

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Abstract

The main purpose of this pioneering research effort in the U.S. was to introduce into Western knowledge the theoretical and methodological principles of Suggestology and Suggestopedia; to interpret their most important aspects in relation to relevant theoretical and experimental works; to develop further the method of suggestion and the methodology of the suggestopedic process and to demonstrate suggestopedic teaching. In addition, the purpose of this research was to examine the effectiveness of the suggestopedic method for memorization and oral proficiency in the use of language material.

An experiment was conducted at the Linguistics Department, University of California, San Diego (UCSD) in the spring of 1973 with the suggestopedic method in teaching first year Bulgarian to 6 female volunteer college students in 120 hours during 1 quarter.

Special teaching materials and procedures were developed to implement teaching Bulgarian. A new method using visual and mental imageries for hypermnestic reading and writing was introduced. In six hours the students learned to read and write using the entire Cyrillic alphabet. They assimilated 1,800 new words in 10 sessions. As hypothesized, hypermnesia was evidenced in their memorization performance, with a median of 91% correct on two in-course and one final written tests. Two of 6 students showed perfect test scores. Taped subjective reports indicated that the students had broken their previously held beliefs limiting learning.

For oral proficiency comparison, 10 students learning first year Russian with an advanced method were used to provide data over 3 quarters and 360 hours of instruction. (Bulgarian and Russian are highly similar Slavic languages.) Two expert judges independently rated the final speaking proficiency of all 16 students. The median proficiency rating for Bulgarian students was high with practically complete comprehension of everything and rare errors. The median proficiency for the Russian students indicated about 50% comprehension and many errors. Thus the experimental students had learned more Bulgarian than the control students had Russian, and in one-third of the time.

Purpose of the Research

G. Lozanov (1971) Director of the Institute of Suggestology, Sofia, Bulgaria, brought attention to the ancient secret of the specially trained Brahmins of India called Stotrayas. In centuries past they memorized their sacred writings which contained hundreds of thousands of words. Lozanov made a serious attempt to find the key to this ancient mystery of hypermnesia (heightened memory) by applying to learning in a wakeful (non-hypnotic) state the method of suggestion. Lozanov further developed the theory and method of suggestion, called Suggestology. The method is not only applicable in medical and psychotherapeutic practices, but is also used for the exploration of man's hidden unconscious reserves and potentials. The suggestopedic practices, i.e., the educational processes which take place in the created suggestive setup,

[1] A dissertation presented to the Graduate Faculty of the School of Human Behavior, United States International University, San Diego, 1975. Condensed and reprinted by permission. / Requests for reprints should be sent to: Dr. E. Philipov, Center for New Learning Methods, University of Tubingen, Munzgasse 11, 7400 Tubingen, W. Germany.

were applied to studying foreign languages and have become the experimental field for the systematic knowledge of Suggestology.

This research attempted to further the work on Suggestology. Its main purpose was the testing, development and integration of the suggestopedic method into the Western body of knowledge. The present experiment in suggestopedic learning and language acquisition was carried out in an academic setting in the United States, and compared to an advanced method of language learning there. It presented the first testing and application of the method in a university setting to the author's knowledge. The video and audio documented demonstration of the method included the methodological development done in this study and experiment, and provided a model for further applications and elaborations. The development of the methodology included the creation of a radically new method of learning of a foreign alphabet for the manifestation of hypermnestic effect (i.e. heightened memory) in the phonological reading, recognition, and written production of the same.

Thus, the particular main purpose of the research was:

I. To demonstrate the suggestopedic process as a model for further applications.

II. To develop further the method of suggestion and the methodology of the suggestopedic process.

III. To determine the effectiveness of the method in terms of:

A. The experience of the learners in the process of learning, manifested through the different inner states in which learning occurs.

B. The performamce of the learners as the end product of the suggestopedic process, manifested in:

1. The production of hypermnestic phenomena in the learning of language and

2. The proficiency in use of a language learned by the method of suggestion as compared to a language learned by a traditional method.

Rationale of the Research

The need to overcome anxiety, inhibition and limitations of our mental abilities in learning calls for the exploration of new methodologies in education. This exploration can be aided by a psychological approach dealing with the phenomena of consciousness which includes the working of unconscious processes.

William James (1929) considered that forms of consciousness may determine attitudes though they cannot furnish formulas, and open a region though they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality. As he eloquently expressed it:

> Our normal waking consciousness...is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence, but apply the requisite stimulus, and at a touch they are all there in all their completeness definite types of mentality which probably somewhere have their field of application and adaptation.

Suggestion in this research was intended to be used as a trigger or stimulus for the manifestation of some of these potential forms of consciousness. Their fields of application and adaptation in our particular research were intended to be the entire learning process in language acquisition. The method of suggestion utilizing unconscious mental processes, as indicated in the research chapter, was applied in this research for the purpose of desuggesting of the negative suggestions

from our environment and past experiences, so that new attitudes, awareness, abilities and experiences in the process of learning could emerge. For this purpose there was a need for particular attention on the experiential state of the learners in which the learning process occurs. Means of suggestion were used as tools for prompting, inspiring and creating of experiential states of altered awareness where there was freedom from anxiety and stress, as well as for the impartation of knowledge communicated in this state.

Means of suggestion applied at the Institute of Suggestology, Sofia, Bulgaria were utilized in the present research. The use of imagery for the impartation of language knowledge, as well as of symbolic means of suggestions for heightening of awareness and desuggestion of limitations, was employed for the first time in this research.

Although in the entire learning process the principle of the synthesis of the direct-intuitive and indirect-reflective approach was applied, the direct-intuitive approach, necessitating the education of an intuitive mode of awareness, was the predominant one. The rationale was that the use of intuition, as an immediate apprehension or knowing, contrasted to speculative or mediate knowing and as a possible tool for facilitation of an expanded perceptual receptiveness in learning, has been neglected in the educational practices of our culture. This research intended to demonstrate the impartation and absorption of knowledge in an altered state of mind, thereby mostly bypassing the rational-logical censorship of the intellect.

For the facilitation of the activation and recall of the learned material and manifestation of the phenomenon of heightened memory (hypermnesia) as well as for the free and uninhibited use of the learned language in interaction and communication, the state of infantilization was suggested and used. The rationale was that the child has much greater capacity for memorization, for intuitive perceptiveness and impressiveness than the adult who has learned to use predominantly his rational-logical faculties and to operate his behavior with a set of norms, but thus limiting his potentials.

The application of the experiential aspect of the state of infantilization in Second Language Learning has a significant importance for Linguistics; more specifically, for Language Acquisition theories in terms of the observed differences in second language ability between children and adults. In this respect, the purpose of this study and experiment was the narrowing down of the difference between child-language acquisition and second language learning of adults. Thus the present work touched upon the debate on methods of language learning which has been complicated by theories concerned with the supposed biological basis of language abilities, advancing the notion of a critical stage for language acquisition. As opposed to the notion of fixed stages in man's language abilities, the present study proposed the application of the principles of infantilization as an attempt to reinstate flexible states where child-language acquisition could again take place.

In the light of the latest discoveries of developmental neuroscience in relation to the functions of the brain's hemispheres made by R.W. Sperry (1968), and the corresponding notion of analytical and intuitive modes of consciousness, the present study raised questions for further studies concerning the relation between modes of consciousness and learning. Also, the rationale of the posed suggestions was to instigate further research not only in the more general area of learning and remembering-knowledge acquisition in different states of consciousness, reconstructing old schemas and creating new modes of perception, but also in the more particular area of language learning and acquisition in altered states of consciousness.

Review of Literature

Studies of Suggestion.

The very first naive notions about phenomena related to the field of suggestion had their beginning with Mesmerism. With the concept of the "fluid universally diffused," and "susceptible of receiving, propagating and communicating," a "diffusion of matter subtle enough to penetrate all bodies," whose "action takes place at a remote distance, without the aid of any intermediary substance," Mesmer (1779) attempted to open the door for the understanding of paranormal phenomena, using the wrong key. The dramatic effects which he performed around his baquet contributed little for his scientific reputation.

The first observations and explanations of the psychological aspect of hypnotic phenomena was considered from the beginning a disproof of the existence of anything mystical, of any fluid or energy, and therefore of any energy changes and interactions. The possibility that the phenomena of suggestion were variables antecedant, or interrelated to energy changes and transferences was not considered. Nevertheless the development of the psychology of suggestion was an advance over the attempts of purely physiological presentation of psychological phenomena and marked the beginning of psychology as an independent field of knowledge. Together with the birth of the Freudian and Jungian psychoanalysis, it also opened the path into the vast, but little-known domain of the subconscious mind.

The psychological explanation of hypnotic phenomena was introduced by James Braid in England (1883). In his earlier experimentation in inducing the state of trance, Braid had not especially appreciated the importance of the role of suggestion. In his later work he attributed more importance to the role played by suggestion in producing phenomena, both in the hypnotic and the waking conditions, previously explained by him only as behavior characteristic of phrenological faculties.

For a time Coue (in Bernheim, 1964) studied and practiced hypnotic suggestion according to Liebault's technique. Meanwhile, in his profession he observed the influence of waking suggestion in effecting cures when associated with the use of drugs, which were usually quite ineffective by themselves. He studied the phenomenon for a period of twenty-five years, which led him to abandon the trance entirely and depend wholly upon waking suggestion. He insisted that all suggestion is in reality nothing but autosuggestion.

H. Bernheim (1964), professor on the faculty of Medicine at Nancy, was the spokesman of the Nancy School, named for the place in which he and his predecessor A. Liebault practiced. Bernheim looked for a psychophysiological explanation of the mechanism of suggestion. In the realm

of psychology, he admitted that the cause and essence of phenomena escape us. He did not pretend to advance a theory, but gave a formula. He considered that, if he is not mistaken, this formula would help us to conceive of a mechanism which the mind cannot strictly explain.

According to this formula, the mechanism of suggestion in general is the increase of the reflex ideomotor, ideosensitive and ideosensorial excitability. Bernheim noticed that the ideomotor reflex excitability induced through suggestion affects the unconscious transformation of the thought into movement, unknown to the will. It also can produce exaltation of the ideosensorial reflex excitability, which affects the unconscious transformation of the thought into sensation, or into a sensory image.

In his observations, made only on hypnotized subjects, Bernheim concluded that the transformation of thought into action, sensation, movement, or vision is quickly and actively accomplished before the interference of the controlling portion of the brain has become possible and intellectual inhibition has been enacted. He left the possibility open that the "curious phenomena" may exist normally in the waking condition when the condition of consciousness which moderates the reflex automatism is weakened. Today we speak not of weakened but of altered states of consciousness.

Bernheim maintained that it is wrong to believe that the influenced subjects are weak-nerved, weak-brained, or hysterical. In other words, he considered suggestibility to be a normal phenomenon. Hypnosis was not seen by him as a variety of hysteria or a morbid condition which takes hold of neuropathic cases. The predominantly important role of suggestion as a means for the production of hypnotic phenomena was emphasized. Bernheim insisted that it is suggestion that rules hypnotism.

As a contribution to psychosomatic medicine, the effective use of suggestion for the cure of diseases was indeed a progressive accomplishment. According to Bernheim, the cure was successful except in cases when the "organic cause" was stronger than suggestion, or the negative unconscious autosuggestion too deeply ingrained in the subject.

At the time of Bernheim the concept of lawfulness of psychological events, independent of physiological explanation, was not yet well established. Although he paid extensive attention to the explanation of the physiological mechanism of suggestion, Bernheim's insistence that all the phenomena of hypnotism are results of suggestion, a theory still controversial today, was an advance over the rules of physiological determinism.

Bernheim's debate about the work of the well-known Parisian neurologist J. Charcot, who established the Parisian school at Salpetriere, and his followers Binet and Fere, (1888), were on the ground of the experimentations in Salpetriere. The work done at Salpetriere led to the belief that some of the phenomena of hypnosis were based upon physiological processes with displacements of excitability that are not the results of suggestion. These physiological processes were ascribed to the three stages of hypnosis: lethargy, catalepsy, and somnambulism, manifested in twelve cases and called "le grand hypnotisme," or the great hypnotic neurosis. Unconsciousness was attributed to the states of lethargy and catalepsy, in which states the response to suggestion was considered as nonexistent.

Bernheim's reply was that in the observed thousands of cases in Nancy, all subjects remained conscious in all degrees of hypnotism. They respond in an acute way to suggestion in all states; the state of consciousness of the subject must be understood here as an established and maintained relation with the experimenter. Bernheim maintained that the apparent unconsciousness in the lethargic state as well as other manifested phenomena came from suggestion.

J. Charcot observed that the manifestation of particular symptoms in the hypnotized subject occurred only on the one side of his body. The experiments with "transference" of phenomena such as anaesthesia, contracture, and paralysis from the one side of the body to the other was done with the help of a magnet. The phenomena appeared supposedly without the intervention of suggestion or of the subject's brain, considered as the psychical organ. Since the experiments were conducted in the conditions of lethargy and catalepsy, Binet and Fere maintained that in these unconscious states the conditions of the senses and intelligence render the subject a complete stranger to what is going on around him.

To bring new clarity in this old dispute between the schools at Nancy and Paris, a contemporary notion can be introduced. According to Lozanov, (1971), there are instances where any knowledge of the psychic process remains excluded from the consciousness of the suggestively influenced person. Many complex inner processes resulting from suggestion remain to a significant extent on the unconscious level. The end effect, for example, of reactions to subsensory (subliminal) input occurs to the influenced person as coming "unknowingly how." Unconscious activities exist and can be activated through suggestion in the hypnotic as well as in the wakeful state. The explanation of the suggestive process as an automatic realization of an idea or belief and the claim that there are unconscious states with a total nonresponse to suggestion can be questioned.

P. Janet (1965), a member of the Institute of France and professor of psychology in the College of France, was a student of Charcot and worked also at Salpetriere. As his predecessors, he studied the phenomena of hysterical cases and introduced the concept of disassociation of consciousness. Janet derived his observation only from the abnormal, and he considered suggestion as one of the most fundamental stigmata of the hysterical state. He analyzed, for example, primarily the somnanbulism of hystericals, and used induced somnambulism only in order to produce the recall of amnestic events. His criticism of Bernheim was in the tradition of the rivalry between the schools of Paris and Nancy. It was focused on the question of consciousness of the subjects in which the realization of a suggested idea produces symptoms and behavior.

Janet insisted that the patients did not know, or were not conscious of what happened in their hysterical somnambulism, in order for an idea to have realized itself at will in the disease beforehand. A similar view point was taken by W. Wundt (1892), who considered suggestion as associations connected with an external impression and also characterized with narrowing of the consciousness. Janet observed that in suggestion, each idea seems to develop to the maximum, to give all it contains in the way of images, muscular movements, and visceral phenomena. This complete development of all the elements contained in an idea, he saw an essential characteristic of the phenomenon. He concluded that the idea seemed to develop to the extreme without any participation of the will or of the personal consciousness of the subject.

Thus the suggested idea, according to Janet, realizes itself in an automatic way as a phenomenon foreign to the subject. The influence of one individual on another, exercised through suggestion, is without the mediation of the voluntary consent of the subject. The transformation of the idea in what seemed to be at once another psychological phenomenon, an act of perception, was taken to be not the conduct of a normal mind. The creation by an image of a whole dream and movement--as, for example, the induction by the word "Niagara" of the vivid visual perception of Niagara--was considered by Janet to be the evidence of an abnormal conduct.

In this present research the human capacity to enter into a state of reverie was taken to be a normal phenomenon. Imageries, induced by suggestion, were utilized in the learning process involving the voluntary consent of the learners. The role of imagery as a link between layers of the unconscious and the products of consciousness is discussed in the section on Imagery and Intuition.

The theories of suggestion advanced by the schools of Nancy and at Salpetriere (Paris) dealt with suggestion and suggestive phenomena related to the state of hypnosis. The work on which these theories were based was predominantly clinical and the observations derived at Salpetriere were from abnormal cases. That lead Janet, for example, to the conclusion that suggestibility was a pathological phenomenon.

Suggestibility has been an important concept in the history of psychology and psychiatry and different meanings are assigned by several authors. It has been central to the historical development of hypnosis (Weitzenhoffer, 1953); has been used to explain the placebo response in psychopharmacology (Trouton, 1957); and has been employed as a measure of personality characteristics, particularly neuroticism (Cattell, 1957). Suggestibility has been equated with gullibility and persuasibility (Abraham, 1962).

Eysenck (1974) considered suggestibility to be determined by aptitude, i.e., the presence or absence of ideomotor action present in varying degress in different people, and also by attitude manifested as a controlling mechanism. A decrease of conscious control is followed in suggestible subjects, by an increase of suggestibility according to Eysenck.

Eysenck and Furneaux (1945) made the distinction between primary suggestibility of the ideomotor kind, tested by the body-sway test and secondary suggestibility of the indirection kind, measured by the odor suggestion and the ink-blot suggestion tests. Evans (1967) found that factor analytic studies did not confirm the classification of primary and secondary suggestibility presented by Eysenck and Furneaux. He also noted that much more was known about the psychometric properties of the test which measured suggestibility as response to standardized test-suggestions than the phenomena they measured.

Benton and Bandura (1953) also made an attempt to verify the findings of Eysenck and Furneaux on a normal population. The negative results of their study were in general accord with the literature of the past two decades. It had been indicated that Eysenck and Furneaux presented no impressive evidence for the existence of a factor of secondary suggestibility.

The study of T.X. Barber (1969) on responsiveness to test-suggestion led him to the conclusion that suggestibility is functionally related to attitudes and motives rather than to differences among individuals and enduring personality traits. He finds that:

> The three factors—attitudes, motivations, and expectancies—vary on a continuum (from negative, to neutral, to positive) and they converge and interact in complex ways to determine to what extent a subject will let himself think with and imagine those things that are suggested. The extent to which the subject thinks with and vividly imagines the suggested effects, in turn determines his overt and subjective responses to test suggestions.

Barber saw responsiveness to suggestion as a normal psychological phenomenon and an integral part of normal psychology, expecially of social psychology.

In this research on suggestive learning no tests measuring the suggestibility of the learners were administered. The emphasis in the use

of suggestion in the learning process was intended to be on the attitudes, motivation and expectancies of the learners, and not on their aptitude.

Suggestion and Hypnosis.

As was already mentioned, the phenomenon of suggestion considered by the schools of Nancy and Paris was brought into focus only in relation to the state of hypnosis. The terms hypnotic trance or hypnosis typically implied that the subject resembled the sleepwalker or somnabule, i.e., the person is "half asleep," and responds according to the Parisian School, in a dissociated, rather automatic way to a narrow range of stimuli. Some present-day investigators have a similar view on hypnosis. As Hilgard (1969) pointed out, hypnosis was commonly considered to be a "state" perhaps resembling the state in which the sleepwalker found himself, hence the term "somnambulist" was applied to the deeply hypnotized person.

Bowers (1966) has noted that most investigators interested in hypnosis believe there is an hypnotic state which fundamentally differs from the waking state. He viewed hypnosis as an altered state within which suggestions have a peculiarly potent effect. Among the essential characteristics of the hypnotic state, Orne (1959) included a tolerance for logical inconsistencies ("trance logic") and alterations in subjective experiences induced by suggestions. Evans (1968) viewed hypnosis as an altered subjective state of awareness in which dissociative mechanisms operate. Shor (1962) saw the hypnotic state as having three dimensions--hypnotic role-taking, trance, and archaic involvement.

Charles Tart (1972) observed that while the scientific literature on hypnosis has expanded at a steady rate since the 1970's, no radical, new understandings of the hypnotic state have emerged. Hypnosis, he stated, is a rather vague term and refers to a range of altered states of consciousness, rather than to one clearly defined state. This is, investigators have used the term hypnosis as if there is general agreement on exactly what is meant, but an examination of the variability from subject to subject and from laboratory to laboratory suggests that there are probably several altered states of consciousness produced as a result of procedures all confusingly termed "hypnosis."

T.X. Barber (1969) objected to the traditional view on hypnosis inferred from the response of the subjects to test-suggestion:

> When the supposed causal variable (hypnotic trance) is inferred from the dependent variable (response to test-suggestion) it is difficult to avoid the tautology that subjects respond to test-suggestions because they are in trance and we know that they are in trance because they respond to test-suggestions.

He reported in 1973 experimental studies demonstrating that a substantial proportion of individuals were responsive to various kinds of test-suggestions when no attempt was made to place them in a "hypnotic trance." Subjects who had received a brief task-motivational instruction under waking conditions designed to produce positive motivations, attitudes and expectancies toward the suggestive situation were

generally as responsive to the test suggestions as those who were exposed to the trance induction procedure.

The data of the research at the Institute of Suggestology in Sofia indicated that the use of suggestion in wakefulness was sufficient to improve memorization and that there was no need for hypnosis for this purpose. Lozanov (1973) stated that the hypnotic state itself plays an unconscious and suggestive motivational role. The hypnotised person, according to Lozanov, expects that in this special state he is to show rather more specific possibilities. The increased suggestibility sometimes observed during hypnosis most probably does not originate only from the physiological and psychological characteristic of the state of hypnosis, but also from the concealed motivation which the authority of this particular state carries with itself. The suggestive power of this motivation is probably decisive for obtaining the phenomena ascribed to hypnosis.

Lozanov (1973) noted that quite often hypnosis was confused with suggestion.

> The fact that hypnosis is obtained most often through suggestion is also of significance for the confusion of the two concepts. Through suggestion, however, can be obtained many other changes of mental and somatic character. Their suggestive genesis does not entitle us to identify them with suggestion itself.

Suggestion creates a special setup directed towards developing the functional human potentials mainly by way of unconscious mental activity. The unconscious mental activity to which suggestion is related exists, according to Lozanov, in all and every condition of the person--wakefulness, sleep, hypnosis, twilight conditions of the mind and others.

In spite of the controversial results on the effect of hypnosis on memory and learning observed by Weitzenhoffer (1953), he was led to the conclusion that suggestion involves imparting intelligence to the subject by means of symbolic verbal language. Suggestion was seen by Weitzenhoffer as a form of communication, leading to alteration of awareness. Experiments initiated on the influence of suggestion in hypnosis on memory and learning, have an emphasis more on recall than learning under hypnosis. The superiority of recall under hypnosis in comparison to waking recall has been a matter of controversy. In some cases (Das, 1961), waking recall of material learned under hypnosis has been found to be the lowest in comparison to waking recall of waking learning and hypnotic recall of waking learning.

Stanley Krippner (1963) reported improvement in study habits, examination behavior, motivation, and interest among university students through suggestion in hypnosis.

Most of the studies have been done on posthypnotic amnesia, i.e., on the negative effect of suggestion on memory in hypnosis. This present study, based on the research at the Institute of Suggestology in Sofia, aimed at the manifestation of nonhypnotic hypermnesia, i.e., at the positive effect of suggestion on memory in wakeful states of altered awareness.

Suggestion and the Subconscious.

Historically the New Nancy School was the first to deal with suggestion in a wakeful state. As the spokesman of the New Nancy School, Ch. Baudouin bears the same relationship to Coue, as his theoretical exponent, that Bernheim had to Liebault. Ch. Baudouin's major work (1922), *Suggestion and Autosuggestion*, was dedicated to E. Coue. In his writings, rich with a philosophical overtone, Baudouin perceived suggestion and the working of the subconscious as a powerful and creative tool, applicable to the science of healing and education. Although primary importance was given to autosuggestion and special suggestopedic methodology was not developed, nevertheless the potential influence of suggestion on education was recognized and emphasized.

The most important contributions of the New Nancy School were: the application of suggestion for psychotherapeutic purposes without the salient features of the hypnotic state; the recognition of principal characteristics of the nature of suggestion, as, for example, the so-called Law of Reversed Effort; and the attribution of the most significant phenomena of suggestion to the domain of the subconscious.

In the history of the theory of suggestion, two groups of phenomena were universally recognized as belonging to the domain of heterosuggestion, the phenomena of: a) the acceptance by the mind of the subject of an idea proposed or imposed by the operator; b) the transformation of this idea within the subject into an action, so that the object of the idea is realized. The term "idea" is used in the widest sense of "representation" and denotes the image as well as the concept. Baudouin regarded the second group as significant for the understanding and definition of suggestion, and yet he viewed the so-supplied definition as incomplete.

The main characteristic in question is that the realization of the idea is brought about by subconscious activity, without the subject's being aware of it. According to the so-called Law of Subconscious Teleology, when the end has been suggested, the subconscious finds means for its realization. In the case of autosuggestion, according to Baudouin, it is precisely this unawareness which enables us to distinguish the phenomenon from an ordinary act of volition, from one wherein the subject realizes his idea through conscious effort, while uninterruptedly supervising the work of performance. Suggestibility denotes the ease with which the second phase of the phenomenon, that of the ideoreflex process, ensues.

Suggestion is, according to Baudouin (1922), the putting into operation, by ourselves or by another, of the "ideoreflex" power which exists in us all. The same subconscious inner mechanism of the ideoreflex process operates in hetero- and autosuggestion. The difference between hetero- and autosuggestion, according to whether the ideoreflex power has been put into operation by ourselves or by someone else, Baudouin did not find to be essential. Thus, suggestion is briefly defined as the subconscious realization of an idea. It follows that the emphasis

falls on the subject rather than on the agent. A special attention is paid to autosuggestion after the example of Coue.

Suggestion and Attention

According to Baudouin, a psychological condition prerequisite to all autosuggestion is the existence of a notable intensity of attention. Thus suggestion is not the result, for example, of the acceptation of an idea through a moral pressure exercised by one person on another "obedient" one, as it was defined by Binet. It is an idea which tends to realize itself through a peculiarly concentrated attention, which can be either spontaneous or voluntary (reflective). On the basis of the preliminary act of attention in autosuggestion, Baudouin made a distinction between spontaneous and reflective suggestion. According to this distinction he defined three types of suggestion: spontaneous, reflective, and induced (heterosuggestion).

Here it is necessary to interject that in this present study, emphasis is placed on "redirected" rather than on concentrated attention. The redirecting of attention facilitates the employment of inner mechanisms of the marginal type of subsensory perception as well as the utilization of the intuitive mode of receptiveness. Redirected attention is also utilized for the purpose of deautomatization of the psychological structures which organize, limit, select, and interpret perceptual stimuli, by employing procedures similar to meditative techniques. Such deautomatization, which leads to perceptual expansion, A. Deikman (1972) attributed to phenomena studied in experimental meditation. In the meditation procedures, the attention is shifted from the abstract thought activity of an intellectual style to a receptive perceptual mode, similar to the cognitive functioning by children.

Thus, in the environment of a created suggestive setup, redirected attention selectively leaves the door open for an expansion of perception and for the activation of unconscious mental activity directed in learning processes toward the actualization of mental potential. In the case of suggestopedic language acquisition, the language is "suggested," seeped in, and absorbed, rather than being forced by the intellect. The subject's attention is directed, for example to music and to the inflections and harmonics of the voice, perceived through the tonally sensitive areas of the brain.

Suggestion, Volition and Relaxation

When an idea imposes itself on the mind to such an extent as to give rise to a suggestion, Baudouin (1922) formulated, all the conscious efforts which the subject makes in order to counteract this suggestion are not merely without the desired effect, but they actually run counter to the subject's conscious wishes and tend to intensify the suggestion. This is the Law of Reversed Effort. The expression, "I should like to but I cannot" describes a state of mind enslaved previously by a negative suggestion. Not only the conscious striving, but also any negative statement made by the subject aggravates the noxious suggestion.

The Law of Reversed Effort Baudouin considered the most original contribution of Coue, although the latter gave neither the name to it nor a definitive psychological formula. This effective law was part of the ancient Eastern way of life and wisdom and was expressed by the philosopher Lao-Tze.

This present study took into consideration that the effectiveness of the suggestopedic method depended on reconditioning of attitudes, accepted norms of aptitude, and overcoming of antisuggestive barriers. Although not referring directly to the Law of Reversed Effort, G. Lozanov (1973) emphasized as the most important task of the suggestopedic process the *desuggestion* of the previously suggested norms. The entire setup for the suggestive learning was directed toward the realization of the desuggestive processes which work in a dialectical unity with the means of suggestion. The suggestive atmosphere was created so as to facilitate the instructed avoidance of volitional exertion, strife, intellectual inhibition, and anxiety about behavior and performance. The means of suggestions, applied in their interconnection and convergent influence, induced experiential states which have one common and predominantly important element, relaxation. The state of psychological relaxation, called by G. Lozanov "*behavioral pseudo-passivity,*" will be discussed later in this chapter.

Relaxation was considered by Baudouin (1922) as a significant condition wherein the desired suggestion can come into being with minimum effort. In the states of consciousness between sleep and waking, in dreams and reverie, the subconscious, which contains in its unceasingly active "subsoil waters" the hidden suggestions, comes into awareness. All these states of consciousness are not only characterized by the outcropping of the subconscious, but also by relaxation of attention and suspension of inhibition. To describe attention which lacks effort, Baudouin used the word "contention." Relaxation he defined as the outcome of a decision of the will. It is a decision in virtue of which the will abdicates for a season. Relaxation is precisely this abdication. Will is a state of tension.

It is a matter of interest to add here some of the results of the research with Autogenic Feedback Training into voluntary control of internal states, conducted by E. Green (1970) and associates at the Menninger Foundation. Concentrated attention and visualization of the desired event characterize the state of the subject in which the experiments into the control of internal functions are conducted and measured by an electromyographic system (EMG). The voluntary-involuntary physiological domain E. Green related respectively to the conscious-unconscious psychological domain. The results indicated that for the control of the voluntary nervous system, belonging in the conscious domain, it is necessary to use active volition, while the control of the involuntary nervous system, belonging to the unconscious domain, necessitates "passive" volition. Once the subject has willed the desired results, has "told the body" what to do in order to obtain the desired results, he has to relax and assume a nonstriving attitude. This is called "passive volition"

by E. Green. The opposite of the desired effect is obtained by active volition, i.e., by exerted effort. In the suggestopedic process, G. Lozanov also instructs the learners to assume a nonstriving attitude.

Suggestion and Imagery

Reverie and hypnagogic imagery, measured in low-frequency alpha and theta rhythms in the EEG record, have also been studied by E. Green et. al (1970), as a way to enhance and study creativity. These studies, which were a contribution to the understanding of altered states of consciousness, gave evidence that creativity in the mental domain springs by intuition from unconscious sources. In the creative state of reverie, approached by means of theta brainwave training, the gap between conscious and subconscious processes is voluntarily narrowed and temporarily eliminated when useful.

Imagery or fantasy (Marcuse, 1955) plays a most decisive function in the total mental structure. It links the deepest layers of the unconscious with the highest products of consciousness. In its cognitive function it links the dream with reality.

Imagination was regarded by Baudouin (1922) as a precondition of suggestion. He accepted the view of Coue that when the will and the imagination are at war, the imagination invariably gains the day. Coue's insight led him to see that what is required in suggestion is not the re-education of the will but the education of the imagination.

In this present research, as a further development of the suggestopedic method, an effort was directed not only toward the education of the imagination, but also toward its application in learning. The state of reverie was induced, and images were impressed upon the mind for the impartation of knowledge as a new suggestopedic feature.

As another addition to the suggestopedic method in this study, the suggestive power of the imagination was extensively employed in symbolic suggestions. These suggestions involved archaic images as symbols. Here the notion which underlies Depth Psychology, namely that imageries preserve the archetypes of the genus, the collective and individual memory, and retain the structure and the tendencies of the psyche prior to its organization by reality, was considered. Symbolic suggestions were intended in this research to inspire transpersonal and synergetic experiences for the purpose of desuggesting of previously imposed limitations and creating an "open" and receptive attitude. In this also the author's method was different from Lozanov's.

The education of the imagination and the intuition in the suggestopedic process are not directed primarily toward knowledge of one's inner self or used as therapeutic techniques for which they bear a potentially powerful effect. They are directed instead toward the actualization of spiritual and mental potentials for the purpose of factual knowledge acquisition. Thus the actualization of mnemonic potential leading to the manifestation of the phenomenon of hypermnesia, is purposed for, and utilized in language acquisition.

Hidden Potentials and Hypermnesia

Suggestion, according to Lozanov, is the process in which a special setup is brought about, mainly by the way of unconscious mental processes for the unfolding of the functional reserves of the psyche. In the term "unconscious mental processes," G. Lozanov (1971) includes unconsciously perceived information. He emphasizes that there is a large flow of information from our environment, which we perceive through the central nervous system, more or less outside the field of consciousness. There are transitory states, or "shadows," between the fields of optimal excitation and deepest inhibition, where G. Lozanov hypothesizes, the unconscious processes are kept, combined, and developed.

G. Lozanov (1973) stresses the importance of the entire environment in which the suggestive as well as rational processes occur. He maintains that:

> Rational moments in the person-environment interrelation are in an indisruptable unity with suggestive elements... The unconscious mental activity, on which suggestion is based, plays an important part in balancing the individual with the environment.

By creating a delicate balance, Suggestology as the science of suggestion, directs the use of suggestive elements toward the activation of hidden potentials of the mind. Hypermnesia, as one of these potentials, is prompted, inspired, and brought into manifestation in the suggestopedic process.

It is necessary for a suggestologist to believe in the existence of a phenomenon in order to bring about its manifestation. Bernheim (1922) for example, stated that he had never seen the intellectual faculties exalted to an extraordinary degree, or new aptitudes created by hypnotic suggestion. He never observed an intellectual phenomenon exceeding the normal in degree. Bernheim obviously did not look for this phenomenon and consequently did not induce its manifestation.

One of Lozanov's most important contributions in his work with suggestion is that he directed attention not only to the "normal" as contrasted with the "abnormal," but also to what is considered to be the "paranormal." Hypermnesia, as an extensive and rapid memorization, is traditionally considered to be a paranormal phenomenon. In the suggestopedic process, the manifestation of hypermnestic phenomena is not only aimed at an actualization of mental potential which is within the reach of the learners, but also is directly utilized in learning.

Means of Suggestion

The *means of suggestion*, utilized by G. Lozanov (1971) for the prompting and actualization of mental potential in learning are:

Authority

It is not meant authority in general, but mainly the authority of the source and method of suggestion. The rationale, as has been proven in suggestopedic experiments, is that authority creates higher expectation

and motivation, higher suggestive influence and informational validity of the material taught, leading to infantilization, increased perceptiveness and memorization. For the creation of the suggestive setup, attention has to be placed on the authority carried by the method of suggestion which is embodied in the teacher, as well as on the authority of the source of information of the selected material to be learned.

Infantilization

This is not meant as an age regression, but as a selective psychological setup for the release of man's faculties and potentials taken to be characteristic of children. The rationale is that the child has a much greater capacity for memorization, for intuitive perceptiveness and impressiveness than the adult. The adult has learned to use predominantly his rational-logical faculties and to operate his behavior with a set of norms, thus limiting his potentials.

Role-playing is widely used for the creation of the suggestive setup leading to infantilization. The created situations are similar to the way children learn. The program and material taught has to comply with the psychological requirements for the infantilization of the learning process.

The "Second Plane" of the Suggestopedic Atmosphere

This plane includes all varieties of stimuli which a person radiates unconsciously or semiconsciously, i.e., it includes the nonverbal communication which takes place between artist and audience, teacher and students. Means of suggestive influence on this plane are: gesture, diction, intonation, harmonics of the voice, use of music, eye and facial expression, etc. The teacher has to be an artist and a master of the "second plane" of his attitude. The reaction to the unconscious influence on this plane is called by G. Lozanov "Nonspecific Psychic Reactivity" (NPR), through which a large perceptual input is handled mostly through the inner mechanism of the marginal type of perception, activating unconscious functions and reserves. Lozanov stated that:

> The goal-directed use of the "second plane" of our behavior sometimes is sufficient for the building of authority at first sight, influencing students, patients and the audience; for the building of trust and the atmosphere of infantilization; for the creation of conditions for a deep and efficient suggestive impact.

G. Lozanov emphasized strongly the importance of reaching mastery of the "second plane" of the suggestive influence. Without the mastery of this plane, he recommended work with suggestion should not begin.

The rationale for the mastery of this plane is that it builds up the intuitive perception of the students and reaches their minds in a more direct way than the logic of facts and arguments. It creates a deep and effective suggestive influence and facilitates the creation of a suggestive setup and the application of other means of suggestion directed toward the actualization of mental potentials.

In the suggestopedic experimentation as part of the present study, the Nonspecific Psychic Reactivity and the second plane of the suggestive atmosphere were incorporated in the learning process.

Intonation and Rhythm

Intonation and rhythm are meant not only as part of the "second plane," but also as independent means of suggestion used in a definite, elaborated way, called the "vertical intonational swing." This swing consists of three intonations: reciting (as reading a title, with an even tone); quiet tone or whisper (indicating significance); powerful tone (with firm assurance). The psychological charge of the three intonations is emotional but well measured. The rhythm of the intonations is well-defined also.

The rationale for the use of the intonational swing and rhythm is that there is a substantial, suggestive influence reached through the use of intonations and rhythm in voices, as well as of music, in the arts, theater, cinema, television, etc. They have been successfully used in suggestopedic experiments as a suggestive influence for the creation of suggestive interconnection, authority, expectations, feelings of significance, and for a less rational experience of the learning process (Lozanov, 1973).

Concert Pseudopassivity (Behavioral Pseudopassivity)

The state of psychological relaxation is called by Lozanov "pseudo-passivity." Activity here is not understood as behavior but as one of inner attitude. Pseudopassivity, according to Lozanov, is something like an infantile non-strained perception of the surrounding world. Furthermore, Lozanov states that practice in autogenic training, relaxation or Yoga savasana is not necessary in the suggestopedic process. He (1971) maintained that:

> Only a setup of calm relaxation and confidence toward the presented suggestive program is required, a setup similar to that at a concert is necessary. Then the audience is passive behaviorally and they make no intellectual efforts to memorize or understand but give way to calm intuitive perception of the presented musical program. The physical and intellectual behavioral passivity, however, are not genuine full passivity of the person since simultaneously complicated inner processes take place in connection with the perceived tones, generated moods, aroused association and flashes of ideas. In the created suggestive setup of hypermnesia, for example, the antisuggestive barriers can be overcome much easier, and the potential capacities of the mind can be released.

The creation of the suggestive setup of concert pseudopassivity is not meant only to take place during the last part of the experiment, when the learners receive the foreign language information through passive attention while listening to music. During the whole process and experience of learning, through all the means of suggestion already mentioned above, an inner attitude of pseudopassivity, similar to the inner attitude in a concert, takes place. The behavioral expression of this attitude becomes manifested during the last part of the experiment. The suggested inner attitude is one of psychological relaxation in a calm and

pleasant atmosphere. The students are instructed not to use volitional exertion. The avoidance of self-observation is recommended. For the realization of the hypermnestic phenomenon a psychic passivity, as a separation from all disturbing influences, tension, doubts about success of performance, and daily thoughts, is necessary.

The rationale behind this method is that calmness, trust in the functional mental ability, freedom from the anxiety about a successful result, and a lack of volitional exertion, lead to a spontaneous memorization process as natural as it is in children.

Identification

The suggestive effect of the act of identification is utilized by Lozanov in the suggestopedic process. For example, a student takes a new national identity of being French while studying the French language; he is not any more a foreigner studying with an effort a foreign language. The rationale is that in the act of identification inhibitions are reduced and a change of attitude occurs which facilitates the learning process.

In this research the students in the suggestopedic process "become" Bulgarian while learning the Bulgarian language. Identification as a means of suggestion is further used by employing for the first time in this research the new means of symbolic suggestion, discussed previously. For example, by suggesting to the students their identification with flowers in a green field, and "drinking" the sun light, the overcoming of anxiety and self-consciousness is triggered, and an open attitude of receptiveness is induced.

The above stated means of suggestion were applied by the author in this research on suggestopedic learning.

Considerations, Arrangements and Methodology of the Research

Leading Theoretical Considerations

The present research in suggestive hypermnesia and language acquisition followed certain guidelines. In the procedural application of suggestopedic principles, emphasis was placed on:

a. modes of inner awareness rather than on outward behavior,
b. experience rather than on end-product performance,
c. attitude rather than aptitude, and
d. the intuitive, receptive, perceptual mode of awareness rather than on the analytical consciousness.

Attention was refocused; although the mnemonic orientation was present and hypermnestic effect suggested, attention was not directed toward the activity of memorization and learning as such.

To redirect attention and to create the conditions for receptivity and behavioral passivity, necessary for the "impartation" of language knowledge in this state, selected means of suggestion such as music, special voice intonations, rhythm, and imagery were employed. The methodology for the condition of infantilization included qualitative charac-

teristics specific for children's language acquisition and memorization processes, such as intuitive receptivity, intellectual passivity, use of involuntary memorization, and direct penetration and activation of the "imparted" language. This last direct approach was achieved through redirecting attention toward communication in actions, interactions, complete involvement in a situation, and immersion in the immediate experience expressed in movement, dances, crafts, songs, laughter, games, role-playing, stories, imageries, etc.

Thus, the methodology incorporating the principles and means of the method of suggestion was designed to awaken intuitive, imaginative, and cognitive human potentials. The applied means of suggestion were seen in a functional relation to the actualization of mnemonic potentials in a receptive and intuitive perceptual mode, similar to what is taken to be the perceptual and cognitive functions of children.

Our theoretical considerations included the following:

1. The created suggestive setup was expected to induce a flow of experiences of altered states of awareness by which the gap between conscious and subconscious processes was narrowed, the teleological tendencies of the subconscious toward the realization of suggested purposes were activated, and imaginative and creative potentials of the unconscious mind were actualized.

2. In the created suggestive setup, as conclusions of the empirical research done in the Institute of Suggestology, Sofia, Bulgaria, stated, it was expected that: a) desuggestive processes underlying all changes of inner functions acted upon conditioned attitudes, accepted norms of aptitudes and antisuggestive barriers; thus, the desuggestive processes took place in dialectical unity with suggestive processes so as to promote the desired changes and results; b) all means of suggestion utilized unconscious psychic activities through subsensory input due to the Nonspecific Psychic Reactivity (NPR) stimulated on the second plane of the suggestive atmosphere; c) in redirecting attention in the memorization process through the use of Nonspecific Psychic Reactivity, some inner mechanisms of the marginal type of subsensory perceptions were employed, i.e., part of the marginal subsensory perceptions were shifted into conscious perceptions and part of the conscious perceptions into the field of the marginal.

3. This research included the consideration that the redirected attention in the cognitive and memorization processes lead also, especially in the heightened awareness of the state of behavioral passivity, to an expected level of deautomatization of psychological schema which organize, reduce, limit and select the perceptual input, resulting in a certain level of reconditioning of these schema and in a perceptual change.

4. It was expected in this study that the specially selected means of suggestion, prompting, inspiring and unfolding the creative cognitive potentials of the mind, also could "re-in-state" the creative aspect of cognitive language abilities. The attempt was one of overcoming the so-called "critical stage" for language acquisition or "lateralization" of language function, by inducing a "flexible state" where "child" language acquisition could again take place.

Experimentational Arrangements

Locale and Subjects

The suggestopedic experimentation was conducted in the Linguistics Department at the University of California, San Diego (UCSD), Spring Quarter of 1973, as a special study course as part of the curriculum in Linguistics. The subject matter of the class was described as

"a consideration of recent work in suggestive psychology and its potential applicability to second language acquisition." The subjects, regular university students, received for the course four units of academic credit. They learned the Bulgarian language through the suggestopedic method. The facilities of the language laboratory in the Language Center of the Linguistics Department were available for audio and video recording, as well as for recordings of dialogs, alphabet imagery, musical presentations, etc. The classroom arrangement consisted of a large room with soft light separated by a one-way mirror from an observation room, where the experimentation was observed, technically assisted and recorded.

The subjects were six female students with no previous knowledge of the Bulgarian or any other Slavic language. The male candidates for the course, although interested in the method, had preferences for different languages, predominantly for the French language which was not offered suggestopedically. No pretests of suggestibility were administered and no special sampling procedure was applied. The students registered for the course on the basis of their interest in the subject matter. The homogeneity of the class consisted of similarity in age and sex, as well as in the exposure of all the students to the usual academic pressure resulting from other course requirements. Two of the students were from a different social minority class, one of whom was on academic probation. Another student was handicapped, having a serious sight deficiency. The interest in language learning, as such, differed in degree and was not strongly present, except for two students who were language majors, one of them a graduate student in Linguistics.

The time requirement for the course of 120 hours in one academic quarter was the same as for the Basic Language Program, applied in the Linguistics Department. The required time total of the suggestopedic class was in class involvement, while the Basic Language Program consisted also of laboratory and home assignments (see Table 1).

Table 1

Contents and Time Allotted in the Comparison Group

Task	Session (in numbers)	Time (in hours)
Conversational sessions	30	30
Grammar sessions	10	20
Language laboratory assignments	30	30
Reading assignment	10	20
Reading of conventional grammar	10	10
Reading of general linguistics	10	10
TOTALS	100	120

The appropriateness of the choice of locale and subjects was indicated by the following considerations:

1. To demonstrate the effectiveness of the method in an academic environment, the locale of the present research was chosen to be a uni-

versity campus and the subjects university students, which allowed the procedures, processes of learning and testing to be executed in this specific setting.

2. It was considered that conducting a qualitatively different learning procedure and experience as part of a university curriculum might provide an option for future change of education in a scholastic environment of high academic pressure.

3. This high academic pressure, which theoretically presented conditions for retroactive inhibition in retention of the learning material, (due to the difficulty of the activities in other course requirements which immediately followed the memorization processes of the suggestopedic class or the similarity of the preceding and subsequent activities as learning), presented a special challenge for the testing of hypermnestic recall and retention in the suggestopedic experimentation.

4. The Department of Linguistics at the University of California, San Diego, had an acknowledged scholarly reputation and a language center with excellent facilities, that constituted a favorable condition for further development of the suggestopedic methodology, as well as for its documentation.

5. The Basic Language Program of the Department applied an advanced and efficient method in language learning, which incorporated the empirical generalization that,

> Differences in methods in learning account more for the observed differences in second language ability between children and adults than do differences in the biological age of the learners (Newmark, 1970).

Thus, a comparison of results of language performance in speaking proficiency made with other students of the Basic Language Program was found to be appropriate. This comparison also served one of the purposes of the present research; namely, the testing of the efficiency of the suggestopedic method against a different and advanced method of language teaching in the United States.

Comparison Group

The comparison group was comprised of students from the Basic Language Program of the Department of Linguistics in the Russian language. The results of speaking proficiency in the Bulgarian language, acquired for one academic quarter (120 hours) were compared with the results of the speaking proficiency in the Russian language, acquired in three academic quarters (360 hours).

A control group, in a strict sense, was not employed because of conclusions drawn from previous research. In the Institute of Suggestology, Sofia, Bulgaria, attempts by Lozanov (1971) had been made with control groups which were given for assimilation in a traditional learning method the same volume of material given to the suggestopedic group. Such control groups proved to be incapable of following with the volume of given language material. The assimilation of a large volume of language, and its use, demonstrated the efficiency of the suggestopedic method.

The complexity and nature of the present research, and the interrelation and convergent influence of all variables involved, would not allow a traditional control of these variables without the danger of artifi-

ciality. As an obligation to science, effort was made to comprise in a descriptive language and to document a large variety of phenomena of the suggestopedic processes, including the experiential data of the altered states of awareness. Also in the procedural application of the suggestopedic principles, the means of suggestion were incorporated as antecedent and constituent variables of the method of learning. They were employed in the suggestive interconnection, complex interaction and convergent influence directed toward the potential reserves of the mind, and were seen in a functional relation with the produced results.

The appropriateness in the selection of the students in terms of subject variables was based also on previous research, which shows that the performance in suggestopedic memorization was not significantly influenced by differences in sex, age and educational background. Thus, the homogeneity of the students in terms of age and sex was not expected to influence the results.

No pretest of suggestibility was administered since previous experiments in responsiveness to test suggestion as discussed in the section on suggestibility, indicated that suggestibility is functionally related to attitudes and motives rather than to differences among individuals in enduring personality traits. The present research put an emphasis not on suggestibility as an abnormal or peculiar phenomenon, but on the learner's attitudes and motivations which were subject to suggestive influence and change in the suggestopedic process.

Methodology

The researcher of the present study was directly responsible for the setting up of the suggestopedic program, as well as for the conducting of the experimentation, the preparation of suggestopedic language material, and the instruction in the Bulgarian language. Technical support, in terms of equipment, material, and the help of a technical assistant, was provided by the Linguistics Department. Although having to work under the limitations of still using a classroom, some aspects of the physical setting were altered by the use of soft light, armchairs, etc., so as to break the appearance of a typical classroom and reinforce the pleasant suggestive atmosphere of the course. The provision of specially selected music, even when not directly employed in the presentation of language material, also helped this endeavor throughout the course.

Structure of the Suggestopedic Experimentation

The structure of the suggestopedic experimentation is the framework of the suggestopedic procedure; it is rather flexible and follows the content and rhythm of the suggestopedic process. The experimentation was conducted in thirty sessions, four hours a session, over eight weeks in one academic quarter. The sessions were held in two main stages. The first stage began with an introductory lecture, followed by nine sessions designed to lay down the patterns of the type of the phenomena which were encountered in the learning of the language. The

major suggestopedic and linguistic task in the second stage was the deliverance of language material and its assimilation and use.

The time distribution of each particular session flowed in the same tempo for sessions similar in content. Some sessions in the second stage exhibited divergence in structure due to the research character of the course, requiring careful observation of the experience of the students, administration of tests measuring their hypermnestic performance, and video documentation of their experience and performance. Thus, not every session in the second stage was utilized for the deliverance of new language material; out of the twenty-one sessions in this period as shown in Table 2, only in ten sessions was new material given, which constituted a total of 1,800 new words necessary for the production of hypermnestic performance.

Table 2

Contents and Time Allotted in the Experimental Group

Task	Session (in numbers)	Time (in hours)
STAGE I		
1. Introductory lecture, acquaintance with phonetics and the written production of the alphabet	2	6-8
2. Acquisition of the patterns of grammar	7	20-28
STAGE II		
3. Assimilation and activation of new material	10	40
4. In course tests of hypermnestic performance	4	16
5. Field exploration for application of language knowledge (beach, restaurant)	2	8
6. Task-motivational instructions, conferences with the students, changes in procedures	3	12
7. Video documentation of a) procedure, b) experience and performance of the student	2	8
TOTALS	30	110-120

Introductory Lecture

The students were acquainted with some characteristics and requirements of the learning process; the means and nature of suggestion were briefly discussed. The mnemonic orientation of the course was mentioned, but the process of memorization was not distinguished as a special task activity and object of conscious attention. It was explained to the students that the emphasis in the learning process was on inner awareness and attitude; that activity was to be understood not as behavior, but as an inner attitude. It was also stated that psychic passivity as a separation from all disturbing psychic influences was a necessary condition for the experience of a relaxed and trustful state of being: spontaneity, joy and freedom. The students were instructed to avoid any mental stress, abstract categorizations, analytical speculations, volitional exertion, strife, self-observation and anxiety about behavior and performance. A strong confidence was expressed in the release of their spiritual and mental potentials. It was suggested that a hypermnestic effect would be expected as the strifeless unfolding of their potentials in the experience of the learning. The "breaking of the limitations of the mind in learning" was set as a motivational task.

Thus, the introductory lecture was used as a general task-motivating instruction in the procedural application of the method of suggestion. As the course progressed, short conferences were held when necessary to instruct further and encourage the students, as well as to explain some of the hidden psychological mechanisms of the most apparent positive or obstructive phenomena manifested in their experiences.

First Stage

In the beginning two sessions, priority was given to the mastery of the Cyrillic alphabet used in the Bulgarian language. The procedure used for this purpose was developed and applied for the first time here in this experiment. The remaining seven sessions were devoted to the presentation of the main features of grammar.

Alphabet. In correspondence to the applied procedures and the experiential states in which the learning occurs, two parts of the process were distinguished: a) receptive--in a relaxed state of reverie, the associating in the mind of the symbol and sound of the letters took place; b) active--the performance of the acquired knowledge was executed.

For learning in a receptive state, a specially created video and audio production of the Cyrillic alphabet was prerecorded and presented. The method employed in a pleasant and relaxed state of reverie the intuitive and imaginative qualities of the learners.

The students were instructed to sit in a relaxed position in the armchairs with their eyes closed. It was suggested that they visualize in their minds what they perceived in their hearing. After a few minutes of pure music, a soft, almost whispering voice depicted in a picturesque story a different image for each letter. The music, specially selected from among the compositions of Bach, Handel, Vivaldi, Ravel, Debussy, etc., was continually altered. To harmonize with the imagery depicting

the symbol and often the phonetic sound of the letters, thirty different musical pieces were chosen for each of the thirty characters of the alphabet. The building of the picturesque imagery reached a climax for each letter by incorporating the written character of the letter, whereupon the students were asked to open their eyes. On closed circuit television they watched the letter being drawn. At this point, the sound of the letter was pronounced distinctly and then repeated by the students three or four times with different combinations, (i.e., for the consonant sound "b," it would be repeated with "ba," "be," "bo," etc.). This method circumvented any need of finding an equivalent sound in the native tongue for the one in the second language.

The speaker's voice then softly directed the students to return to the pictorial image and to imagine the letter directly incorporated into the created scene, thus the absorption of the letter into the mind was strengthened by the link between letter and imagery. The letters, presented in sets of six or seven each, appeared on the TV monitor after completion of each set for the purpose of their recognition by the students.

Following the presentation of each set of letters, the students were led in an immediate transition from the previous relaxed, receptive state into the active state. The teacher, being a catalyst in the process, lead, inspired, excited, and involved, the students in the actions, being at the same time a model for correct pronounciation. As part of the activities, the students were asked to identify with particular letters, "becoming" the letters themselves, and to paint them with colored poster paints. While they recognized the symbols of all letters and pronounced their sounds, they played games saturated with laughter, movement and group actions. At the end of the second session, they were asked to spell using the painted letters and compose words in a playful way. Thus, the active state was one of infantilization.

In the complete involvement in the given suggestive situation and atmosphere, the students were led toward the manifestation of child-like spontaneity in learning. At no time hopefully was there any strain in memorization, nor a problem of mixing the Roman alphabet with the Cyrillic. The phonetics of the language were acquired directly as children learn their native tongue.

Grammar. The amount of grammar presented during the seven sessions of the first preliminary stage, while large in relation to the time spent in covering it, was small in its non-emphasis of detail, exceptions, or explicit rules of usage. It included areas such as pronouns, gender of nouns and adjectives, forms in the postpositive article system, verb conjugations in various simple tenses, and negative and question formation. The pace of the presentation was fairly rapid, but a forced memorization and abstract categorization of rules was avoided. The purpose of these sessions was to design only the fundamental patterns of the language; to give a pattern to the flow of communication, which followed in the later sessions. Thus, the attention of the students was directed toward communication and not toward the conscious imposition of grammatical

rules in their language performance. The unconscious application of the rules of the language was expected to lead to an unaware formation of speaking "habits" and/or to a fostering of an innate sense of grammaticality.

The underlying grammatical competence of the students and the subliminal absorption of grammar, was strengthened with the assimilation of whole meaningful sentence structures in the receptive experiential states in the second stage of the course. It was activated in involved experiential situations and communicative processes. Although the immersion in a communicative flow could only follow the assimilation of the large volume of language given in the second state of the course, an effort was made in the seven sessions of grammar to present the material on an interactional basis.

The novelty of the phonetic and written presentation of the alphabet as well as the excitement of the students induced in the first two sessions was utilized also in the grammar sessions. The students used the original letters, which they had painted for the alphabet and hung on the walls and found the appropriate letters to spell out a grammatical form. They painted whole words for the purpose of spelling out simple sentences. In these activities, the students directly employed their mastery of the alphabet in all facets. When providing an inherent proof of their mastery in spelling out grammatical patterns and sentences, they were encouraged by the teacher. The attention was focused on painting and games with the painted posters, involving all students simultaneously. Although a formal presentation of grammar on the blackboard with all students seated, was avoided, the use of the blackboard, at first purposely neglected, became a source of enjoyment for the students when they could demonstrate their own writing knowledge. Thus, the state of infantilisation was maintained as much as possible through the presentation of grammar.

Second Stage

In the first part of the session, the language material assimilated the previous day was activated in the experience and performance of the learners. The new material was introduced only once. After the intermission, with the use of specially selected means of suggestion , the new material was given for assimilation in the experiential state of receptive behavioral passivity, in which the students employed only their hearing perception.

The structure of the suggestopedic session in the practice of the Institute of Suggestology, Sofia, Bulgaria, as Lozanov (1971) showed, has been purposely altered in experiments to demonstrate the effectiveness of the suggestopedic method in a modified procedure. The altered procedure in the experiments was applied with the active part of the session which employed the visual perceptions of the students in reading the new material, omitting the passive part of the session which employed only the audio perceptions of the students. The results of these experiments compared to the ones including the passive part of the

session, did not demonstrate differences in hypermnestic performance, due to the created strong influence of the suggestive atmosphere.

In the present research, the structure of the second part of the suggestopedic process, in which the already introduced new material is given again for assimilation, consisted only of the passive seance, or session, the so-called receptive state of behavioral passivity. Special attention was given to the experiential aspect of this state. New procedural variables of symbolic and direct suggestion were introduced to reinforce the suggestive atmosphere of the session and the experiences of altered states of awareness.

The time distribution in the four hours was usually equally divided among the three steps of the direct work with the new language material: a) the introduction of new material; b) the "impartation" of the same material; c) the activation of the assimilated material. The time for pure music, relaxation, and for the deliverance of symbolic and direct suggestions was included in the total of four hours.

The introduction of new material. The new material was composed of thematic dialogues containing about 180 new words each. The memorization of a substantially increased volume of the material to be learned under the given conditions of the experiment was meant to have a definite suggestive influence. From a psychological point of view, the increased volume or size of the program was expected to suggest respect and, at the same time confidence in the student's mental abilities for learning. The purpose was also the desuggestion of the old notion of the limitations of mental potentials in learning. From a methodological point of view, the increased volume of the program lead to a synthesized and holistic approach in the acquisition of language; it also encouraged rapid reading instead of cryptoanalytical study and provided a necessary condition for manifestation of hypermnestic phenomena.

For the presentation of the new material, each student received a copy of an eight to nine page dialogue. The thematic dialogue contained on one side the meaningful sequence of the sentences in the new language, and its nearest translated rendition on the other side. The teacher then proceded to read the dialogue aloud to the students, concentrating primarily on the new language. Since one of the students in the course was partially blind and unable to read anything unless it had been specially transposed into a large print, the translated rendition of each line had to be read aloud. Usually a sentence was read in the new language once or twice, and the meaning of some words or phrases were clarified or expanded upon from the given translated version. In addition, if the sound patterns in a word or phrase were complex, or oftentimes for no reason other than to alter the pace of what was being presented, the class would repeat a word or line after the teacher. For the most part, the role of the teacher was quite active in giving the proper intonations of feeling or interpretations of characters in the dialogue. The students received a presentation of the dialogue given by the teacher, with suitable variation in the vocal rendition for each

character. It was more the exception than the rule for lines to be repeated by the student. In most instances this meant that the student did not recite the whole dialogue.

"Impartation" of new language material. In the particular state of receptive behavioral passivity, the relaxed, calm inner attitude of the students, similar to the inner attitude one could have at a concert or in meditation, was expected to be deeply experientially enhanced through the specially selected means of suggestion. Although the above mentioned attitude had also to be induced and experienced through all steps of the suggestopedic process, here its manifestation was most strongly anticipated. For the purpose of "impartation" of the new dialogues, as in the case of the process of absorption of the phonetics and symbols of the alphabet, a heightened intuitive and imaginative awareness of the students was to be developed. At this stage imagery was employed only as a symbolic means of suggestion for the intensification of the direct suggestions, i.e., for reinforcing of the relaxed and "open" state of the students, for drawing them into a peculiar awareness of the voice of the teacher, as well as for the prompting and inspiring of an altered experiential state. The verbal direct and symbolic suggestions drew their force from, and at the same time strengthened the subtle authority and suggestive influence of the teacher. Together with the other means of suggestion, they were directed toward the actualization of the mental potentials of the students, and were expected to facilitate the manifestation of the paradox: relaxation-hypermnesia, by which with no tiresome efforts an increased process of memorization took place. The ritualistic character of these sessions was mostly pronounced here; the feeling of significance was to be brought out on a higher-level, capturing and actualizing the suggestive influence of the hidden authority which this particular experiential state bore.

Music in this stage was directly employed as one of the means of suggestions and specially selected for each dialogue. Among the works of Handel, Bach, Vivaldi, Beethoven, Debussy, Ravel, etc., baroque music, as well as the compositions of the French Impressionists, was found to be most appropriate for the creation of a special suggestive atmosphere. The music was used to enhance: a) the immersion into the experience of the symbolic and direct suggestions; b) the creation of the second plane of the suggestive atmosphere; c) the redirection of attention away from the memorization process; d) the flow and content of the dramatic and intonational presentation of the dialogue. The special intonations and rhythm employed for the presentation of the dialogue were utilized in an elaborate way as part of the second plane of the suggestive atmosphere through the NPR, and as an independent means of suggestion in a functional relation with other suggestive factors. Their application was in the direction of the mnemonic orientation of the suggestopedic process.

In the so-called "vertical intonational swing," each sentence was pronounced once in one of the three intonations: a) reciting, b) whispering, and c) powerful (loud) tone. The psychological charge of the three

intonations was emotional, but well-measured. The rhythm of the intonations flowed with the content of the dialogue. The "vertical intonational swing" was applied in the way that it had been successfully used in the Institute of Suggestology, Sofia, Bulgaria. It was used as a suggestive influence for the creation of suggestive interconnections, authority, expectations, feelings of significance, a less rational mode of learning, and the utilization of the NPR.

Five dialogues containing the intonational presentation of the text with music were prerecorded. The purpose for the prerecording was to establish laboratory conditions for the control and adjustment of tone of voice, level of music, rhythm, time, etc. Five out of the ten dialogues were presented to the students in live performances, after a necessary knowledge of some technical and artistic aspects were acquired from the recordings and their applications. The whisper was usually held at eight decibels above the music.

The reactions of the students toward live or prerecorded presentations of the dialogues were diverse. The inspirational aspect and the immediate presence of the teacher in the live performance was preferred by some, while others liked the technical quality of the prerecorded material. In the second half of the second stage, the presentation of all the dialogues was given in live performances.

Prior to the beginning of the session of behavior passivity, the students were instructed not to resist the voice of the teacher, and yet not to concentrate on it, or strive to hear it, or to remember the words that would flow towards them. A heightened awareness of the music was suggested. The students were seated in the armchairs in a meditative position with hands open, palms upward in a stance that projected their openness and receptiveness. In this position they listened to music as an inspirational introduction to a transporting experience. After the music selected for the presentation of the dialogue began, relaxation of the psyche, calmness of the mind and "reaching out" of one's spirit were quietly suggested. A voice charged with a feeling of significance and assurance declared that the minds of the students were "unlimited" in the flow of their experience and that they would receive and remember with no effort. The students were guided into the experience of the suggested "flow" by symbolic means of expression, for example, their immersion in the flow of a river, completely given over to its motion while contemplating the beautiful scenery and blue sky. The students were asked to "see" the blue sky, focusing from the middle of their forehead.

In the atmosphere so created, the lines in the new language were read with the three distinct intonations of the "intonational swing." The presentation was also given with an appropriate intonation of feeling, expressing an artistic interpretation of the theme and characters of the dialogue. Pauses were made for the intensification of the dramatic effect.

While "imparting" the new dialogue into the minds of the students, the teacher also observed their attitude. The students had to remain in

control of their volition although they were instructed not to exert, but relax their will. They must be able to stand up and leave, if necessary. Although not directing conscious attention to the procedure, they must be albe to detect procedural changes, if such occurred.

After the presentation of the dialogue, the students were led to imagine the symbolized emergence from the relaxed, yet alert state, back to an active and alert one. A suggestion was made that while returning to daily life, they would bring with them what they had received in the new experience.

Activation of the new material. With an appropriate music for a background, the suggestopedic session began with a synergetic group action to uplift the students and to release a harmonious "flow" of togetherness. While all stood in a circle holding stretched out hands, the teacher in a slow, soft, and solemn voice, suggested freedom from anxiety, tension, and daily thoughts and the immersion in a new dimension of experience. Symbolic suggestion was also introduced to inspire and promote the directly suggested experience; for example, the participants were guided to imagine that they were all petals of a flower and led through the motion of "opening up" early in the morning with lifted hands toward the sun. Thus an open and trustful attitude was induced and a festive suggestive atmosphere created.

Immediately after this ritualistic initiation, the students were led to the activation of the language material, assimilated the previous day. They were called upon to "bring forth" that which had been "planted" inside them the previous session. To facilitate this process and to enhance the experience of release and freedom from inhibitions, all students first were led simultaneously in singing songs and in dancing.

The teacher encouraged the motivation, initiative, spontaneity, and creativity of the students as a cooperative, non-competitive group. The students had freedom to move and to dance as little children do when they enjoy a piece of music. Lines from the dialogues were set to tunes the students already knew or had learned, and the songs became part of impromptu skits.

The dialogues were written more or less as a script, including dramatical themes, characters, amusing anecdotes, songs, etc. Their purpose was to provide material for role playing and meaningful experiences on a feeling level, to awaken interest, stimulate the imagination, and to aid the suggestive orientation and infantilization of the learning process. The teacher, being an actor and the director on stage, heightened the exciting atomsphere, but left the initiative to the students, who being identified with the characters of the dialogue, improvised, and inserted their own versions of the anecdotes and re-enacted the scenes of the dialogue. There were no restrictions imposed on the students in this respect and some degree of playful chaos with lots of laughter often arose. The keynote of the activation process of the new language material centered on entering into a new state of uninhibited, naive, and joyful "play," as would a child in his most exuberant moods. Although

the attention was directed toward communication in the new language, this process occured rather spontaneously and was the by-product of the experience of breaking and overcoming the limiting conditioning in learning from one's past and/or unconscious. Thus, the performance of the students could be observed as the manifestation and outcome of their experiences, induced in the suggestive setup. The activation sessions were a daily measure of breaking out of these limitations, manifested in the freedom of the playing out of the scenes of the dialogue and in the corresponding language performance.

Research Design

Hypotheses

Guiding the research were certain hypotheses deduced from our theoretical considerations and suggestopedic principles previously stated. Deductions from these considerations were principles of the suggestopedic method which were to be tested on an empirical ground by the performance and reported experiences of the students. Thus the hypotheses were the following:

1. The method of suggestion would induce the breaking of limitations in the process of learning when experienced in a state of altered awareness.

2. The method of suggestion in the given suggestive setup would produce hypermnestic phenomena in the performance of the learners.

3. The method of suggestion in the given setup would produce results in the performance of the learners indicating higher speaking proficiency than produced by the method currently applied in the Basic Language Program of the Department of Linguistics, UCSD.

Our predictions corresponding to each of these hypotheses were:

The students would manifest breaking of limitations conditioned in previous schooling, such as inhibition, self-consciousness, categorizing, rigidity, tension, anxiety, negative attitudes and accepted norms of aptitude manifested in a "normal" state of awareness in learning; they would manifest overcoming of the so-called "critical stages" in the learning of languages by experiencing in an altered state of awareness of what was taken to be a "child"-language acquisition process - direct, interactive, spontaneous, creative, joyful, receptive, intuitive, and imaginative.

The breaking of limitations in the actualization of mental potentials and of cognitive language abilities would lead to the manifestation of hypermnestic performance, as well as to a higher language proficiency than the one demonstrated by the comparison group.

Variables

The antecedent variables of the present research constituted the method and means of suggestion, and as such were implicitly incorporated in the above stated hypotheses. They were considered to be in a causal relation with the consequent variables comprising our predicted results.

Thus, the expected phenomena manifested in the experience and end-product performance of the students were considered to be dependent (consequent) variables, in a functional relation to the applied suggestopedic method.

The experiential states of altered awareness in which learning was expected to take place were not interpreted as causal variables which alone determined or explained the manifested phenomena in the learner's performance. These states were variables dependent upon the suggestive interconnection of the antecedent variables incorporated in the method of suggestion. Together with the variables of the performance of the students, they were expected to demonstrate the effectiveness of the method, but they were also considered as intermediate variables in functional relation to the performance of the students. The experience and performance of the students were intermediately linked, and the emphasis in the procedural application of the method was placed on the experience of the learners.

Testing

The effectiveness of the suggestopedic method was determined in terms of the experience of the learners in the process of the learning and the performance of the learners as the end-product of the learning process.

The experiential data were collected through subjective reports of the students and observations via video and audio documentation of all the stages and parts of the suggestopedic sessions. The performance of the students was observed and documented daily as the manifestation and outcome of their experience in the activation sessions.

The objectively definable language performance in the demonstration of hypermnestic phenomena was tested by two in-course examinations and one final. The data indicating the retention and recall were measured by the final and in-course examinations, respectively. The three tests consisted of random samples of 600 new words given for translation both in and out of context, out of a total of 1,800 course words. A high percentage of correct answers was expected to indicate the occurrence of hypermnestic phenomena. A Student T-test (Runyon & Haber, 1971) was applied to the results of these tests to measure the difference between retention and recall.

The performance of the students in the suggestopedic experiment and the performance of a randomly selected group of students in the Russian Language Program of the Linguistics Department, UCSD, were measured and compared in an oral proficiency test. For this purpose, the oral proficiency performance of the students of the Bulgarian Language at the end of one academic quarter (120 hours) of suggestopedic learning, and the oral proficiency performance of the students of the Russian Language at the end of three academic quarters (360 hours) were rated accordingly on an eight-point scale criterion for oral evaluation set specially for this purpose by the Department of Linguistics, UCSD. The oral proficiency performance of the two groups was

examined and rated by the two judges--native speakers of the respective languages. A Mann-Whitney U Test for nonparametric rank ordered statistics (Runyon & Haber, 1971) was then applied to the judges' language proficiency ratings.

Presentation of Results

Reported Experiences of the Learners

The following findings, on the experience and performance of students, are presented to furnish evidence for each proposed hypothesis.

The experiential data collected for the first hypothesis consisted of analyses of the video and audio documentations, and observations from the subject's reports. Thus the data covered the first stage of the introductory sessions of alphabet and grammar acquisition, as well as the second stage, in which new language material was received and activated.

First Stage

In the receptive state during which the video production of the alphabet was presented, the students were deeply relaxed and their facial expressions calm. Their voices, when repeating sounds of the letters did not exhibit any strain, and the phonetic production of the letters approximated with high accuracy the native sound. At no time did the students refer to the English equivalency of the sound or shape of the letters, as a report from student #1 indicated:

> Any idea of converting one letter by remembering what letter it matches in English, or of correlating the sound of one language to another disappeared in one's immersion in the whole of the imaginative surroundings of a new sound and form. I would almost judge that the letters ceased to be processed as just letters and came to represent another level of integration of sight, sound and imagination.

The immersion in the imaginative surroundings, as well as the experience of reverie, were reported also by the rest of the students; for example student #4 described:

> My favorite imagery is that of a ballerina dancing upon a silver lake in a forest of tall dark green trees. I don't know if she was really dancing on a lake, but my imagination took off and did many wonderful things. It was almost like wide-awake dreaming. In my imagination, I became that dancing ballerina. She was the letter 'ya'. Learning like this I describe as personal and extremely creative. Many words and incidents later were imbedded into my memory, as was this letter.

Student #5 expanded further the description:

> It wasn't so much becoming the letter as being the continuum surrounding the letter. The alphabet became multi-dimensional--the surrounding was timeless and there was space and depth. The letters, instead of being on a page, became alive, they had flesh and blood, and were not limited to one dimension. They were tangible--you could reach out and touch them. You could not dissociate the images from the letters.

The new experience in learning, as well as the attitude of excitement and anticipation was reported by student #2:

> Burdens were lifted; learning was no longer painful; there was a release. I was excited because I didn't know what was going to happen next. What would these new letters look like?

In the active part of the session the freedom of the students was manifested in their spontaneous actions. The recognition and painting of the letters was obviously enjoyed. They painted by their own initiative all the letters together with the images of the picturesque stories. Like little children, they laughed and spoke at once. In this activity, the students were expressive and creative, and obviously excited about spelling out words, including their new Bulgarian names--symbols of the identification of becoming Bulgarians which they had assumed. These attitudes displayed through the course, were exemplified by the report of student #1:

> Even by the end of the quarter, writing maintained a level of enjoyment or adventure which I can't help but ascribe to the fascinating influence of the method used to introduce the alphabet.

With "imagination suddenly learning to flower," as student #4 reported, and continuing their creative actions, the students maintained a level of infantilization through the sessions of grammar. They spelled out and pronounced grammatical forms correctly with speed. In plays or even writing on the blackboard, they demonstrated an implicit proof for the mastery of the alphabet acquired in the first two sessions. At the same time, they assimilated grammatical patterns.

Second Stage

In the state of receptive behavioral passivity in which the students received the impartation of the new material, they exhibited and reported experiences similar to the first three patterns of a five pattern Scaling Response to Meditation (Maupin, 1972). Their experiences indicated, that they underwent processes of learning how to relax, to focus, to be intellectually passive and receptive.

In the first step of these processes the students had some difficultiy to focus and eliminate distractive thoughts, and occasionally reported unpleasant sensations which did disappear. In the next step they experienced calmness, relaxation and better ability to focus. In the third step the focus was more sustained and some students reported an experience of "floating" and "expanding upwards." Others experienced "daydreaming," including the events of the dialogues. For example, the report of student #3 described:

> My daydreaming would include the events with the car, the first lines at the train station--rhythm of the train and our lives, etc. Most of my daydreaming was in expanding my spirit and seeing scenes--a mountain, lake with a storm, snow and skiing down a slope. I was very much aware of when the music changed.

Student #4 reported more involved experiences with the verbal renditions given in the sessions:

> It seemed that I was absorbed into each word, or maybe it was absorbed into me. I know that I was not memorizing the words. I was more experiencing each one, or experiencing what they mean to me. I seemed like I was acting out the role or attitude of that word in my

imagination to get the feel of it. I remember the word 'easy.' That word made me feel nonchalant, like--Oh, that's no problem. Don't worry about it. That's EASY. Sometimes, though, I would discover myself listening to you speak just to hear the beautiful sounds, and not as a language.

Thus the students enjoyed a freedom in their imagination in the sessions of behavioral passivity of the second stage, although not with the same degree of intensity awakened in the presentation of the alphabet. Their experiences during the sessions, although not always on the same level, manifested an open attitude and intuitive receptivity. The students reported experiences of positive personal changes, such as increased ability to maintain focus and to relax affecting their performance in other academic subjects and their life outside the suggestopedic sessions. A direct functional relation was observed between the degree of their openness and receptivity in the experience of behavioral passivity and the performance they demonstrated in tests and the activation sessions of the suggestopedic process. Their attitude after the sessions was the following: Some statements were made such as the one by student #3 who expressed dislike at having to think after the sessions on a "low plane." All students reported and had been observed to have experienced freedom, flow of energy, increased vitality, and creativity in a continued altered awareness.

The activation session was the beginning of the suggestopedic learning the following school day. The students arrived usually tired and burdened from other course requirements, especially before the mid-term and final examinations. As they responded to the direct and symbolic suggestions, a release and flow of togetherness in the synergetic group actions was experienced. A change in attitude became strongly apparent in the spontaneous and uninhibited singing and dancing, in which all became completely involved. Student #2 expressively described this change:

> Once we got to dancing, singing and playing our games, there was no limit to what we could do, be, or accomplish. I felt wilder and freer by the minute.

The suggested and felt release of tension and freedom brought back the confidence of the students in overcoming their limitations; what was experienced in the creative reproduction of the long dialogues "imparted" into their mind on the previous day. The awareness of the students of this process was expressed in a statement of student #1:

> The planting of the seeds of suggestions of freedom and release was drawing forth from us the freeing belief that we were in fact not limited to what we thought was a reasonable amount or process of learning. the major success in this process does not come at the time of the mastery of the subject matter being studied, but instead at a time when it is apparent that one has effectively broken the restrictive, limiting conditionings from one's past.

One of the results manifested in the class was the realization and experience that learning need not be a painful work: "The overall atmosphere of this class was one of laughing and singing," said student #4:

The laughter varied from an occasional 'bad' case of the giggles, to laughing out loud, just because it felt good to laugh. We enjoyed this class as much as we know how to enjoy anything, and, incidentally, we learned how to speak Bulgarian in the process.

The process of communication involved child-like experiences, and demonstrated daily an obvious freedom in speaking abilities and a substantial recall of the new language material.

Recall was reported by the students also as a reoccurring experience of Bulgarian words and sentences "surfacing" in their minds at various times outside of class. Some of the students experienced this directly on waking from sleep, and others in dreams, or trying to fall asleep. That indicated a depth of immersion and integration of the language on an unconscious level, and a narrowing of the gap between the conscious and subconscious mind.

The experience of students on the final oral examination, which was conducted in as much a relaxed and pleasant atmosphere as possible, was summarized by the report of student #1:

> ...the final breakthrough came clearly by the end of the quarter: the last class meeting, Thursday night of finals week, in which a native speaker came with whom we had never conversed, and quite simply, it was amazing. I am not aware if these talks were statistically rated or not, but I know that the level at which the students were speaking that night even among themselves was unusual. Perhaps most delightful of all, there came that wonder at realizing that one is communicating effectively and well with another person in other than one's own language. There remains something inherently satisfying which is hard to explain exactly but which particularly surfaced the night of our proficiency test and at least gave an 'inner' conviction to me that we were indeed manifesting a breakthrough in the process of learning fluent and adequate language. Without any reservations I do feel that the experiment has completely filled the purpose that it set out to: we were able to speak Bulgarian in an incredibly short length of time and with an incredible degree of fluency.

Results of the Performance of the Learners

The experiential results stated above included also these results in performance which were manifested in immediate experience, for example: the communicative acts of the learners demonstrated in the learning processes. Here we consider only the end-product performances of the students in the manifestation of hypermnesia and oral proficiency measured by respective tests as to furnish evidence for the second and third hypotheses.

Table 3 shows the results of the in-course and final examinations, presented for each student individually. This includes at the bottom the volume of new words per test and the average percentage of correct answers. Test I covered words in context randomly selected out of several dialogues; test II included a whole new dialogue taught to the student the previous day as to measure immediate recall; test III included words out of context, randomly selected out of the entire material and was given as a final examination measuring retention. The Student T-test for correlated samples was 0.28 and showed an insignificant difference between recall and retention. Thus retroactive inhibition was not in effect. The average recall of 91.0% of 600 tested words randomly selected out of a total 1800 possible learned words demonstrated the phenomenon of hypermnesia.

Table 3

Correct Results of the In-Course tests and Final Examination*

Bulgarian Student	Test I %	Test II %	Test III %	Average Per Student
6	100	100	100	100
5	100	100	100	100
4	97	91	87	92
3	96	86	90	91
2	90	89	82	87
1	83	63	88	78
Average	94.3	88.0	91.1	91.0
No. Words	165	236	200	200.3

* In-course examinations were Tests I and II, and the final examination was Test III.

The same students who demonstrated 100% hypermnestic performance in the three tests, also reached the score of near native proficiency in the final oral examination. One of these students had a serious visual deficiency.

With the difference in time spent in learning (360 hours vs. 120 hours), the Russian group of ten students showed one student near native proficiency, whereas the Bulgarian group of six students showed two reaching near native proficiency. In a comparison of Tables 4 and 5 the differences noted ranged from a score of 1 to 7, with the majority earning a score from 3 to 5 for the Russian group. The Bulgarian group revealed a proficiency from 5.5 to 7 for the majority, with the lowest being a 4. The Mann-Whitney U-test for non-parametric rank ordered data was applied to the judges' oral proficiency ratings, and found the Bulgarian group somewhat superior ($p < 0.2$). Thus the experimental students had learned more Bulgarian than the control students Russian, and in one-third of the time. See Table 6 for the proficiency rating scale itself.

Table 4

Judged Oral Proficiency Ratings of Bulgarian Students

Student	Judge #1	Judge #2
1	7+	7+
2	7	7
3	6	6
4	5.5	5.5
5	5.5	5.5
6	4	4
Median	5.75	5.75

Table 5

Judged Oral Proficiency Ratings of Russian Students

Student	Judge #3	Judge #4
1	5	3+
2	3	4-
3	5	4
4	1	2
5	6	4
6	7	5+
7	3	4-
8	4	3+
9	6	5-
10	4	3+
Median	4.5	4-

Table 6

Oral Proficiency Rating Scale

0 The student understands nothing; he does not speak or when he does he is totally incomprehensible.

1 Minimal; the student understands practically nothing; his speaking is confined to a few fixed (memorized) phrases.

2 The student understands very little; he speaks very slowly and can form the simplest type of sentences.

3 The student understands about 25%; he speaks hesitantly and makes a considerable number of errors.

4 The student understands about 50%; speaks at a moderate rate and makes a moderate amount of errors.

5 The student understands the majority of what he hears; he speaks fluently with occasional errors.

6 The student understands practically everything; he is very fluent and rarely makes a mistake.

7 Near native; the student understands and speaks like an educated foreigner who has lived in the country for many years.

8 Native; the student is absolutely indistinguishable from a native speaker.

Final Wrap-up

Summary

The purpose of this research as stated previously was the study of the phenomenon and method of suggestion, its application to the explora-

tion and activation of the area of unconscious processes and mnemonic potentials, their utilization in a learning process, and the enhancement of proficiency in language acquisition experienced in altered and "childlike" states of consciousness.

With respect to the practical application of the method of suggestion, this research had as a particular purpose the demonstration, development, and documentation of the suggestopedic process. It also had as purpose the testing of the effectiveness of the method in terms of the experience of the learners manifested through the suggestively-induced inner states in which learning occured. The performance of students was tested in their hypermnestic production of foreign language. Their proficiency in using the learned language was compared to a different advanced method of language acquisition.

The literature related to the purpose and rationale of this research was reviewed. New developments in the consideration and application of the phenomenon and method of suggestion were brought to attention. The findings of the theoretical schools of suggestion, which had fallen into oblivion, were reviewed in relation to Suggestology, the modern science of suggestion. Thus special attention was paid to the Nancy School, the Parisian School at Salpetriere, the contemporary Bulgarian School of Suggestology, and also to the bearing they had upon the study and experimentation of the present research. The author's original development of the method of suggestion in this study was mentioned also.

Suggestion was studied as an instrument which could be used effectively for the prompting, activation, and integration of different strata, modes, and states of consciousness. Thus the phenomenon of suggestion was studied and applied as a method in the suggestopedic experiment in this research in respect to the:

1. *Strata of consciousness* - the subconscious and unconscious.
2. *Modes of consciousness* - intuitive and rational-analytical, with an emphasis on the intuitive mode.
3. *States of consciousness* - altered states of consciousness experienced in reverie, receptive behavioral passivity, and in the infantilization process.

The theoretical considerations and suggestopedic principles, derived from the research of the literature, were mentioned next as the guidelines of the experimentation in suggestive hypermnesia and language acquisition. The arrangements of the suggestopedic experimentation were described. Special attention was paid to the rationale for the appropriateness of choice of locale, a university setting. A detailed presentation of the applied methodology in the learning process was given. The description of the means of suggestion was included. This presentation covered all stages and parts of the process and also included the new methodological development done in this research.

The stated hypotheses, as part of the research design, incorporated implicitly the theoretical principles derived from the study of the phenomenon and method of suggestion as well as the means of suggestion; these constituted the antecedent variables of the present research. Importance was placed on the experiential states in which learning was expected to take place, which were dependent upon the means of suggestion used for their induction. It was stated that together with the performance of the students, they were expected to demonstrate the effectiveness of the method, but they were also considered as intermediate variables in functional relation to the performance of the students. The experience and performance of the students were intermediately linked, and the emphasis in the procedural application of the method was placed on the experience of the learners. Thus the effectiveness of the sugges-

topedic method was determined by the reported experiences of the learners during learning and also the performance of the learners at the end of the learning process.

Next, the results of the experience and performance of the students were presented to furnish evidence for each hypothesis. The collected experiential data consisted of video and audio documentations, and observations made from the subjects' reports. It covered both stages of the suggestopedic process: the first, in which the acquisition of alphabet and grammar took place, and the second, in which the new language material was imparted and activated. The experiential results included also these results in performance which were evidenced in the immediate experience of learning.

The final performance of the students in the manifesting hypermnesia and oral proficiency were measured by respective tests so as to furnish evidence for the second and third hypotheses. The results were presented in tables and statistically elaborated. The Student T est for correlated data was applied to the results of two in-course and one final examination measuring hypermnestic performance. The T score (0.28) showed an insignificant difference between the recall and retention, or negligible forgetting. Thus retroactive inhibition was not shown to be in effect. The average 91.0 percent recall of 600 new words randomly given in and out of context out of a total of 1800 presented words demonstrated the phenomenon of hypermnesia. The Mann-Whitney U-test for non-parametric rank ordered data applied to the judges' oral proficiency evaluation found the suggestopedic performance superior ($p < 0.2$) to that of the comparison group. The difference in time spent in learning was 120 hours experimental vs. 360 hours control.

Conclusions

The results from the experiences of the learners during the process of learning and the performance of the learners at the end of this process tested on an empirical ground the validity of each proposed hypothesis. The inferences drawn from the test of the hypotheses were:

1. The method of suggestion induced the manifestation of the breaking of limitations in the process of learning, experienced in the states of altered awareness.
2. The method of suggestion produced in the suggestive setup the manifestation of hypermnestic phenomena in the performance of the learners.
3. The method of suggestion in the setup produced results in the performance of the learners indicating a higher speaking proficiency than the results produced by the method currently applied in the Basic Language Program of the Department of Linguistics, UCSD.

The evidence from the empirical data derived from the experience and performance of the learners indicated that the emphasis in the procedure on inner awareness rather than outward behavior, on experience rather than on end-product performance, attitude rather than aptitude, and on the intuitive, receptive, perceptual mode of awareness rather than on the analytical mode, proved to be effective.

The experiences of the learners during the suggestopedic sessions typically manifested an open attitude and intuitive receptivity. A direct functional relation was observed between the degree of their openness and receptivity in experience, and the performance they demonstrated in examinations and in the activation sessions of the suggestopedic process. The two students, for example, who demonstrated one hundred percent hypermnestic performance and also the highest speaking proficiency were very different in aptitude. The one, a graduate student in Linguistics, had a strongly ingrained habit of using her well-trained

analytical abilities. The other, incapacitated by a serious sight deficiency, had no such aptitude. She had developed a dependency on others in learning and was originally very tense. Those tendencies and habits gradually diminished in the process of desuggestion. Although different in aptitude, both students manifested strongly an open and receptive attitude in the suggestopedic process. The students reported experiences of positive personal changes such as increased ability to maintain focus and to relax, thus affecting their performance in other academic subjects and their life outside the suggestopedic sessions.

Psychological relaxation was found to be a very important condition for an effective learning experience. The students arrived at the awareness that an effortful attempt to memorize the material served an opposite effect. If any anxiety was present, the recall of the learned material was depressed. It seemed that the Law of Reversed Effort became effective in hypermnestic memorization and recall. The state of behavioral passivity facilitated the impartation and recall of the significantly increased amount of language material. The experiential evidence showed that a state of deep relaxation with attention focused and redirected was not achieved at once, but was gradually increased in the experience of the learners in the suggestopedic process. In the state of receptive behavioral passivity in which the students received the new material originally, they exhibited and reported experiences similar to patterns of response to meditation. Their experiences indicated that they underwent processes of learning how to relax, to focus, and to be intellectually passive and receptive. Anti-suggestive barriers, manifested at certain instances, diminished and disappeared as the relaxation and the psychological suggestive influence increased.

In the receptive state, relaxed and redirected attention proved to be effective. They facilitated the receptive, perceptual mode similar to the cognitive functioning of children by which the shift of attention is from the abstract intellectual thought activity to the intuitive one. There is a strong evidence that the infantilization state facilitated a spontaneous and creative recall of the learned material, where learning was experienced not as a painful work but joy. The results also indicated that an experiential state was reached where childlike language acquisition was approximated.

The experiential reports showed also that symbolic suggestions and synergetic group actions released a "flow" of togetherness and caused a considerable change in attitude. The students who have arrived tired and burdened from other course requirements experienced a vitality, a release of tension, and an openness in attitude. The feeling of breaking of limitations and freedom in the state of infantilization was also experienced by the students. The factual evidence collected from the reports of the students and from the video and audio documentations of the learning process showed that the students manifested overcoming of limitations conditioned in old schooling, such as inhibition, self-consciousness, categorizing, rigidity, tension, anxiety, negative attitudes and accepted norms of aptitude. Thus the prediction corresponding to the first hypothesis was verified.

The state of reverie and the use of interrelated image, sound, and word in learning activated mnemonic potential in the phonetic and written production of the alphabet. As indicated in the experiential reports of the learners, the immersion in imaginary surroundings and the use of imagery led to the imbedding of the symbol and sound of the letters into the mind. The so-learned alphabet was experienced as being tangible and alive, not limited to one dimension. The use of imagery and the immersion in the imaginative surrounding of a new sound and form also eliminated the use of English equivalency of the sound and shape of

the letters. It also led to a correct phonetic production of the new alphabet.

The direct experiential involvement in an environment of music and images proved to be an important and effective characteristic of the author's development of the suggestopedic method. In the second stage of the suggestopedic process, the experiences of daydreaming, involving the scenes of the dialogue and the absorption into the words by experiencing them, manifested the same specific characteristic of learning in the states of reverie and receptive behavioral passivity.

The effectiveness of the use of the means and method of suggestion in the acquisition of language material was also manifested outside the classroom in the spontaneous recall reported by the students in hypnagogic states--upon waking and before falling asleep and also in dreams. This recurring experience of words and sentences surfacing in their minds indicated a depth of immersion and integration of the language on an unconscious level and a narrowing of the gap of the conscious and subconscious mind.

A conclusion reached in this research is that the suggestively induced states of consciousness are characterized by: a) relaxation of volition and attention; b) suspension or desuggestion of inhibition; c) narrowing down of the gap between the different strata of consciousness; d) utilization of the intuitive mode of consciousness.

The use of symbolic suggestion, also introduced for the first time in this research, facilitated the integrative use of the different strata of consciousness. The use of symbolic suggestion and imagery, together with the use of music, special voice intonation, and rhythm, contributed to the education of the intuitive mode of consciousness by which one can speculate that the functions of the right hemisphere are activated and integrated into the learning process. To a great extent, the results of a childlike language acquisition, hypermnestic performance, and proficiency were attributed to the effective use of the method of suggestion in the education of the intuitive mode of consciousness. It can be hypothesized on the ground of the findings in related literature and of the empirical data of this study that the unconscious psychic activities, activated by the method of suggestion in the learning process, were processed predominantly in the right hemisphere, thus facilitating the hypermnestic language performance of the left hemisphere.

Recommendations

The conclusions drawn from the present research confirm the validity of the findings of G. Lozanov in respect to the means and method of suggestion. The demonstrated and developed suggestopedic methodology in this study can be further applied in learning with promising possibilities. Promising results in this field can be anticipated in the work of research psychologists who consider consciousness, specifically, those who consider unconscious mental processes and investigate taboo subjects for the science of psychology.

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Following her research and teaching at UCSD, Dr. Elizabeth Philipov was on the faculty of the Psychology Department, Pepperdine University, Los Angeles, where she was also Director of the Suggestology Program. While at Pepperdine University she organized and chaired the First International Congress of Psychology of Consciousness and Suggestology in 1975. In this period she studied the production of suggestive elements in different states of consciousness, and the role of suggestion and imagery as catalysts of mnemonic phenomena. She also acted as consultant on suggestopedic learning and lectured widely on the subject in the United States and Europe.

Since 1976 Dr. Philipov has been a visiting professor in the Center for New Learning Methods at the University of Tubingen in Tubingen, West Germany. There she has conducted research on the influence of music and suggestion on learning performance. Presently the author is investigating the direct effect of attention and music on memory during encoding and retrieval. She also continues her work on the theoretical and methodological development of the suggestopedic process as a new learning method.

Recent publications and papers are:

1) Discussion on Suggestopedic Learning, in *The Suggestopedic Experiment*. Ottawa, Canada: Public Service Commission, Canada, 1975.

2) Increasing Rate of Learning with Suggestive Imagery Techniques. Proceedings of the 27th Annual Scientific Meeting of the Society for Clinical and Experimental Hypnosis, Chicago, 1975.

3) The effects of Music and Relaxation on Learning Performance. Proceedings of the International Meeting on Biofeedback and Self-Regulation, University of Tubingen, 1977.

4) The Role of Suggestology in the Arts of Healing and Learning, in *Wholistic Healing: New Frontiers in the Treatment of the Whole Person*. Edited by H. Otto and J. Knight, Chicago: Nelson-Hall, (in press).

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A Two Year Evaluation of the Suggestive-Accelerative Learning and Teaching (SALT) Method in Central Iowa Public Schools[1]

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Abstract

This two year experimental field study investigated the effectiveness of the Suggestive-Accelerative Lozanov Teaching (SALT) method applied to varying levels of socioeconomic level, grade level, and subject matter by 16 public school teachers during the first year and 10 during the second. Most of the teachers on this project were those who had responded to a request to learn a new teaching method in the Summer, 1976, and subsequently took a 120 hour teacher training workshop that same summer. The rest of the teachers were trained in a fall 40 hour abbreviated workshop covering the same principles in the background of Suggestology/Suggestopedia; openness in a greater communication by the teacher; creative dramatics; testing development; and some research design. The subject areas taught included elementary school spelling, reading and health, junior high earth science, life science, art and agribusiness, plus German I and a pilot project in German II. Grade levels ranged from the first grade through the 10th grade. Criteria were achievement tests specific to each of the experimental teachers and also the Brooks Student Questionnaire, which measured three independent student attitudes of student-teacher affective relationships, perceived school stress, and school-learning orientation. A minor criterion was the Levenson Locus of Control test utilized by two teachers during 1976-77 and one during 1977-78. In terms of raw data for all classes, there was much support after the second year for the SALT method in terms of accelerating achievement and essentially no support in terms of student attitudes. The SALT method appeared to be equally appropriate for elementary as well as junior high school students. There were no great differences between results with low socioeconomic status students vs. those at the middle socioeconomic status stratum. Creativity was enhanced.

In view of the significant accelerative results achieved by most of the second year teachers in achievement, the method appears to be definitely worthy of further study and implementation in a public school system.

Introduction

The purpose of this educational field experiment was to determine the effectiveness and the appropriateness of using the Suggestive-Accelerative Learning (or Lozanov) Teaching (SALT) method for improving classroom attitudes and achievements in selected central Iowa public schools.

Achievement test scores in the U.S. school system have shown a

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declining pattern for the last decade (Harnischfeger & Wiley, 1975). The research described herein was an effort to try out, then evaluate a promising new educational method that was felt to have the potential of halting and reversing this downward pattern.

There are only a few research reports in this country describing the Lozanov method. What is known about the process comes chiefly from a translation into English of Lozanov's work (1971). His work has demonstrated that learners are capable of learning material at accelerated rates using suggestive methodology: "Students could be taught foreign languages five or more times faster than by normal methods." The Lozanov method has been shown to be effective in teaching many types of school subjects in Europe.

The most recent educational research on a large scale was reported by Lozanov (1975). He applied suggestopedia to Bulgarian primary schools for teaching beginning reading and arithmetic. Two large comparable urban schools and two small rural schools were studied. One school of each size used suggestopedia; the others were controls. Pretests at the start of the 1973-74 school year showed the students initially were comparable in reading and math. But at the end of the school year, both urban and rural experimental pupils had higher reading and math scores than did the controls. This difference was true in spite of the fact that the experimental students had covered all nine months' material in the first 3 ½ months. Beginning English and German had to be used as fillers to occupy the students in classes.

Only a few attempts have been made (originating in Iowa, Georgia, and Texas) to adapt Lozanov's methodology to U.S. schools. Briefly, Gritton, et al. (1976) reported a pilot program for eighth grade science students in a Des Moines junior high school who were significantly behind two control classes in the fall. After four months of instruction using Americanized suggestopedia about 1/5th of the time, these same students gained significantly and caught up to the control school pupils in sciences. Prichard and Taylor (1976) reported a remedial reading program conducted in suburban Atlanta which has since averaged four months gain per month of instruction. Owen Caskey (1976) described similar applications in Texas.

Several U.S. university-based studies have investigated language teaching with suggestopedia. Bordon and Schuster (1976) used the method successfully for Spanish. Schuster (1976) also reported favorably that it was possible to speed up the teaching of beginning Spanish three times faster than usual with this method at the university level. Held, in his Iowa State doctoral dissertation (1976), reported data for teaching and remembering word meanings to elementary school students that provided some support for the Lozanov approach.

The Lozanov method uses components of preliminary physical and mind calming exercises, along with indirect suggestion, prior to the formal learning process. Instructional processes utilize a dramatic and dynamic presentation coupled with special mind-calming exercises designed to promote high retention of curriculum material presented.

The version of the Lozanov method practiced in this project has three primary phases. Phase one is a preparation phase in which learners are required to perform simple physical exercises, undergo mind-calming exercises, and use imagery to recall early pleasant learning experiences. Phase two is the presentation phase where a positive suggestive atmosphere is created by the instructor. This involves a process in which desuggestion is used to remove barriers that learners have set on their learning skills. The first presentation of curriculum material is made in a fascinating and artistic fashion with dynamic, dramatic swings of intonation on emphasis from shouts to whispers while learners try to project themselves into the material and experience it. The second step in the presentation phase is passive in nature and the instructor requests that learners relax and listen to material presented while listening to background music. Step 3 is a practice step in which learners converse and use the material presented before. Role playing is encouraged and tests are given. Tests are corrected but left ungraded. Grading is done primarily on the basis of an announced final exam.

A basic difficulty in installing the Lozanov method in U.S. public schools is that it is so new that it has been little used, studied and disseminated. It has been, and is being, used successfully in schools located in Bulgaria, Russia, Germany, Hungary and Canada, but it has been employed only to a limited extent here in the United States. The basic question is how best to adapt an effective European educational method in America?

The first year on this project showed only limited support in terms of achievement for the SALT method vs. the control students. However, many administrative and testing problems occurred during that first year which made the fairness of the test situation uncertain for half of the teachers. With one minor exception, all of these previous administrative difficulties were successfully overcome in the second and last year on the research project. The resolution of administrative and testing problems plus a second year practice effect generated by dedicated, capable teachers produced data definitely in support of Lozanov's theories.

Method

The research design to evaluate the effectiveness of the SALT method was fairly straightforward, the basic idea being that of differential treatment for two groups and pretest, posttest design. In addition, an attempt was made to obtain teachers in different subject matter areas, grade levels, and socioeconomic levels. A major subject matter area was spelling.

For nine of the ten teachers the research design was what is called a non-equivalent control group design, each SALT class was paired with a class in the same neighborhood covering the same subject matter and at the same socioeconomic level. A pretest-posttest design was used in

an attempt to compensate for possible preliminary differences between classes.

The vocational agriculture teacher varied his teaching so as to provide his own control students. This vocational ag teacher used a Dr. Jekyl - Mr. Hyde design in that he taught two sections of vocational agriculture with the SALT approach and the other two of his four sections with a conventional approach to teaching. The experimenters analyzed preliminary achievement data on the students and randomly selected which two of the four sections should have the SALT treatment and which two should be controls, taught conventionally.

Special emphasis was given to investigating the socioeconomic status of students by grade level in the area of spelling. Consequently, six of the ten SALT teachers who completed the project used spelling as the test subject matter. An attempt was made to get at least one teacher at both the low and middle socioeconomic level for each of two grade levels. Spelling was investigated in some detail then for both low and middle socioeconomic levels and in grades three and five. Special interest centers on the effectiveness of the SALT method for students from lower socioeconomic backgrounds compared with students from middle-class backgrounds. Students from low socioeconomic backgrounds are usually not motivated to learn and achieve in school. They are perhaps more motivated to avoid learning and escape the school environment. One of the purposes of this experiment was to attempt to reverse this common occurrence and produce students who are eager to learn and enjoy a particular subject area.

This field experiment had three major phases: (1) training the teachers to use the SALT method, (2) actually using the method in classroom situations, (3) preliminary evaluation of the effectiveness of the method, and then final evaluation. The major teacher training was done in a 120-hour second summer session 1976 ISU workshop while six additional teachers were trained in a 40-hour in-service teacher training project during the fall and winter of 1976. The first year data collection phase ran from September, 1976 through May, 1977 for half of the teachers and from February through May, 1977 for the remaining teachers trained during the fall and winter. Second and final year data collection was from September, 1977 through May, 1978.

There were two major types of criteria or dependent variables. First was the achievement criterion which was unique to each pair of teachers, SALT vs. control. The criterion test depended, of course, on the subject matter such as spelling, art, reading, German, or vocational agriculture. In some few cases, standardized achievement tests were used as was the case for art (Eisner Drawing Test; Eisner, 1967), German (Common Concepts Foreign Language Test: German; Banathy et al., 1966), and reading (California Achievement Test; CTB/McGraw-Hill, 1973). For the remaining areas of spelling and vocational agriculture, achievement tests were developed in active collaboration with the SALT and the control teachers. The concern here was to develop two alternate forms of the same achievement test that would be of compa-

rable difficulty and that would sample comprehensively from the material that the teacher was going to cover that school year. Spelling teachers were asked to provide us with their textbooks from which words common to both teachers were selected for testing. One form of the test was then given as pretest in the fall, and the alternate form was given as posttest in May. For the standardized tests, there was just one test form available and it was given both as pretest and as posttest.

The second major criterion was the Brooks Student Questionnaire (BSQ) as refined by Schuster and Millard (1978) which measures the attitudes of students on three independent scales of student-teacher affective relations, perceived school stress, and school-learning orientation. There is only one form available. The test was administered as pretest in the fall of 1977 and as posttest in the spring of 1978. The BSQ test appears to have adequate factorial validity, generalizability, and reliability. Specifically, the test measured the same three independent factors listed above across three levels of public school children, elementary, junior high, and high school students. Also, these same factors were corroborated with data from three different school districts.

A third and minor criterion was locus of control as measured by the Levenson IPC Test (Levenson, 1973). This test measures a student's locus of control, whether a student feels in control of his or her own destiny in the school environment as well as life in general (Internal control) or whether the student feels that powerful other people (P) control him or her, or whether the student is a victim of chance (C).

The research hypothesis for all of these criteria was that the students who had been taught with SALT would show a favorable improvement on achievement, attitudes and locus of control as compared with gains or losses over the same period by students taught in the traditional or conventional manner, however the individual control teacher defined it.

It is appropriate to make some comment here about what the teachers were taught in the teacher training workshops. These activities were structured around the following 15 activities or modules.

1. Didactic presentation of SALT/Suggestopedic cognitive material. This focused on suggestive positive atmoshpere and whole brain learning concepts.

2. Affective training of participants to perceive, process, and communicate emotional expressions. The purpose was to establish an accepting and non-threatening learning atmosphere.

3. Supervised teaching. This provided the teacher trainees the practical, supervised, and controlled teaching experience using the SALT methodology in their own subject matter area.

4. Training in intuitive, perception/communication. This provided trainees with opportunities to enlarge and develop their abilities to trust, to perceive communication without distortion, to discover and foster their professional selves and to communicate their intentions clearly in a non-manipulative way consistent with Lozanov's concept of an integrated double plane communications model.

5. Lesson plan preparation. The teachers developed lesson plans incorporating didactic classroom materials within a SALT framework.

6. Development of assertive, artistic, and aesthetic communication. With a variety of structured activities, the participants were helped to develop a personal style that was honest, self-accepting, self-assertive, attractive, dynamic, and effective in communicating both verbally and nonverbally. Some of the activities were voice training, stage presence, singing, nonverbal communication, and creative dramatics.

7. Interpersonal relationships training. The basic technique here was an initial T-group experience to break the ice and to provide the teachers with a means for making personal adjustments to the demands of the training program and the subsequent program requirements. A goal here was to establish a clear and open channel of communication between the teacher and project administrators.

8. Development of testing and evaluation instrumentation for classroom use. The trainee teachers were made aware of the need for reliable and valid test criteria if changes in pupils were to be documented.

9. Management of therapeutic side effects of SALT. The purpose of this activity was to make the teacher trainees aware of their suggestive impact and their role as a teacher/therapist through structured activities and discussion groups. This was felt to be an important part of teacher training as Lozanov claims (1971) that the biggest advantage of suggestopedia is not its educational acceleration, but its development of the human potential, including freedom from emotional hangups.

10. Foreign language learning through SALT. To convince the teachers that SALT worked and to provide them with a sample of the SALT techniques and methodology, approximately ten hours of the summer teacher training course were devoted to giving the teacher trainees a short course in basic Spanish. This included giving them a quiz over material covered so as to show them how much they had learned in a short time.

11. Mind-body interaction awareness and training. The training activities included short demonstrations of the effect of one's state of mind or emotion on heart rate as well as mood on learning.

12. Training evaluation and feedback. Group and individual discussions were held frequently to permit the teachers to evaluate how well the group of teachers was doing. Correction of activities and changes in the direction of the workshop happened frequently as a result.

13. Group interaction awareness and training. The teachers were trained in the use of group dynamics and classroom applications of psychodrama, role-playing, and creative dramatics.

14. Development of teacher expectations. Teachers were taken through a number of activities designed to get them to change their teaching style and stimulate their personal growth. This was done in part with the help of the practical background in SALT that they got in the workshop, from improving their communication skills and teaching ex-

perience with SALT, and developing curriculum skills for their SALT classrooms.

15. Research design. A certain minimum of research design philosophy was felt essential for the SALT teachers, that is, the necessity of pretesting and posttesting, the use of a comparison group, the use of valid tests, and certain rigorous experimental procedures.

We encountered considerable teacher attrition over the course of the project, losing a total of six teachers who began the project in 1976. Three of these teachers discontinued SALT at the start of the year for personal reasons, mostly because using SALT required much extra effort in terms of classroom preparation. The other three teacher dropouts were accounted for as follows. One teacher wanted to use the method in fourth grade spelling, but had to discontinue after several weeks because the use of audio equipment disturbed students in the adjacent classroom when SALT was used. The ninth grade earth science teacher resigned late in the spring, due to an argument with his principal over how to handle classroom discipline. We continued to have a problem with the remedial math teacher for grades 7-10, who during the previous year had spent very little effort in preparing SALT materials for his classrooms and had administered no pretests. He continued this same behavior during the second year of the project; that is, in addition to teaching math his own way, he obtained no pretest scores. Therefore, we had no choice but to drop him.

We encountered two administrative problems in addition to attrition during the course of the second project year. The seventh grade art teacher had a major health crisis of such severity that he was not able to teach his art classes during the months of December and January. Subsequently, he did not administer the art pretests until March, 1978. This teacher wanted to continue in the program, so we did include his data even though only two months elapsed between his pretest and posttests. In comparison, the control art teacher carried out eight full months of instruction between pretest and posttest. Thus we feel the lack of results for this teacher can be explained by his not having taught very long in comparison with the control teacher.

The second problem occurred in conjunction with the German teacher who did what amounted to a pilot project with teaching second year German with SALT. We attempted to get comparison data from two teachers for second year German. The first control teacher had only six students taking second and third year German. The second control teacher had approximately 20 students in second year German and provided us with pretest data. However, this second control teacher refused to administer the posttests on the basis that they took too much time in the spring of 1978. Thus, due to the low number of students involved, we felt that the data for the second year German project should best be viewed as a pilot project rather than a full-blown experimental project. Fortunately there was control data available for this teacher's German I class.

Results

We now turn to a summary of program results over the two year duration of the project. Each pair of SALT and control teachers was treated as a separate experiment. The pre and posttest data were analyzed with analyses of variance, or analyses of covariance when appropriate, for each teacher. Separate reports have been written for each teacher and are being combined according to subject matter area for publication in other journals.

A summary of results for all classes is provided in Table 1. Achievement and attitude (three BSQ subtests) results are shown along with classification by subject, grade level, and socioeconomic status.

The achievement data for the first project year were not impressive. Four of the 16 SALT classes showed positive results, i.e., in three cases their students scored significantly higher ($p < .05$) than the control classes, while one teacher covered the same lesson material as a comparison class with similar test results, but in only 40% of the control's class time. Three classes showed significant negative results, that is, the SALT-taught students did worse than conventionally taught students. Nine SALT classes either produced results comparable to control classes (8 cases) or had no appropriate standard for comparison of results (Teacher #14, who taught in a remedial learning center for learning disabled students).

Two factors heavily influenced the first year project achievement results. The first factor was an inappropriate testing procedure, particularly for the eight spelling teachers. Since the SALT and control teachers used different textbooks, the problem of covering equivalent material had to be faced. It was dealt with (though unsatisfactorily) by taking lists of 50 spelling words submitted by both members of each SALT/control teacher pair, combining them into a single list of 50 words, then providing the combined list to both teachers with instructions to be sure to cover those words during the year. Thus, both SALT and control teachers knew the words from which the posttest would be taken, though there was no administrative control over either the amount of or timing of emphasis placed on those words. Another testing problem arose with art, where we used the Torrance Test of Creative Thinking (1966) which is a test of creativity, not art per se. Although interesting project-wide results did occur on the Torrance Test (note subsequent discussion) they did not occur in the 1976-77 art class. No doubt an alternate measure would have been appropriate.

The second factor which undoubtedly influenced first year achievement results was the inexperience of the original assistant project director who had not worked previously as a teacher trainer, combined with the hospitalization during the year of the project director who required surgery and was not able to function at full strength in support of the SALT teachers.

The three BSQ subtest scores did provide evidence of a minor affective trend in favor of SALT classes. Although Table 1 indicates that

Table 1

Achievement and Affective (BSQ) Data Summary
1976-78 SALT Project

Teacher Identification			1976-77				1977-78			
Teacher Number	Subject	Grade & SES	Achievement	Affective Relations	School Stress	Learn. Orien.	Achievement	Affective Relations	School Stress	Learn. Orien.
1	Spelling	3, mid	-			+	++	--	-	
2	Spelling	3, low	+			+	+	+		
3	Spelling	6, low					+	M	M	
4	Art	7, low	-		+				+	-
5	Spelling	1, low	+			+	M	np	np	np
6	Spelling	4, low				+	xx	xx	xx	xx
7	Health Science-Reading 78	5, mid		-			++			
8	Earth Sci.	9, low	+	+	+	+	xx	xx	xx	xx
9	Spelling	5, low					++		-	
10	Life Sci.	7, low					xx	xx	xx	xx
11	Spelling	4, low					xx	xx	xx	xx
12	German	9, mid					++			+
13	Spelling	5, mid	-							-
14	Math, Reading	9, low	p+	p+			xx	xx	xx	xx
15	Ag. Bus.	10, mid								
		9, low	T	+		+	++			
16	German	9, mid					xx	xx	xx	xx

++ significant at $p < .01$ in favor of SALT
+ significant at $p < .05$ in favor of SALT
— significant at $p < .01$ in favor of Control
- significant at $p < .05$ in favor of Control
xx Did not participate during 1977-78

Blank - No significant differences
np No BSQ pretest data
p+ No control data, practical gains
T 2 ½ to 1 time advantage, SALT over control
M Significant ($p < .05$) interaction favoring SALT males

the large majority of the SALT/control subtest comparisons indicated no significant differences, it is also clear that whatever change that did occur was distinctly in favor of the experimental classes. A total of 10 subtest comparisons favored ($p < .05$) SALT, while only one comparison favored ($p < .05$) a control class. Seven SALT classes recorded at least one significant BSQ subtest comparison, while as previously mentioned only one control class managed even a single significant positive BSQ subtest result.

The second project year was much more favorable to the SALT classes in terms of achievement comparisons. Seven of the ten SALT classes showed significant ($p < .05$) positive results, while another one was near significance ($p < .08$) with a significant treatment by sex interaction favoring SALT male students. No class showed negative results, that is, the SALT-taught students never did worse than the conventionally taught students.

Although a more appropriate measure of art achievement (the Eisner Drawing Inventory) was employed during 1977-78, the SALT art class showed no difference vs. its control. However, the pre-post testing interval was much shorter for the experimental class. As noted earlier, the SALT art teacher had severe health problems resulting in his not teaching for part of the school year, thus the test-retest interval for him was only two months vs. eight months for the control teacher. This teacher and his data might well have been excluded, but the teacher wanted to continue and be a part of the project. Explaining the lack of significant results for the remaining teacher is more uncertain. The project staff was uncertain of the nature of her program, for she invited us to visit her classroom only once during the year. Thus, we suspect that she was considering dropping the SALT program but did not choose to inform us of her lack of commitment. Another possibility accepts the null hypothesis: This teacher had tough competition leading to a standoff. Although we speculate that her use of SALT was minimal and feel that this was another case in which test data could have legitimately been excluded from the analysis, we nevertheless report her results as they occurred.

BSQ data were mixed during the second project year, for, as during the previous year, the large majority of the SALT/control subtest comparisons indicated no significant attitudinal changes. A total of 10 subtest comparisons were significant ($p < .05$); however, they were equally divided between favoring SALT and control classes. Thus no trend was established.

Other Evaluative Data

The achievement and BSQ data were not the only measure of change available to the project staff. Although the following discussion focuses on data obtained primarily during the first year of the project and which were considered to be of less overall importance, these measures (creativity, classroom attendance, and another affective

scale) nevertheless deserve mention.

Dr. Jonathan Edwards (president-elect, Society for SALT, 1978) conducted his dissertation research during 1976-77 in conjunction with the project. The purpose of his study was to examine what effects SALT had on the creativity of low and middle socioeconomic status (SES) fifth and eighth-ninth graders in central Iowa. SALT, based as it is on the Lozanov method of suggestopedia, is obviously an instructional method directed toward tapping the reserve capacities of the learner through conscious and especially unconscious means. If SALT made learning easier and faster than "conventional" teaching methods, but at the expense of student creativity, the method would have limited value. Though the underlying principles of SALT and creativity appear compatible, only one experiment specifically has investigated this relationship and found that creativity was encouraged.

A 2 x 2 x 2 x 2 nonequivalent control group design was used with univariate analysis of covariance to determine the effects and interactions of treatment, grade level, SES, and sex on 11 verbal and figural creativity variables derived from raw scores on the *Torrance Tests of Creative Thinking*, (Torrance, 1966). One hundred seventy-five pupils (the sampling unit) were exposed to SALT for six-to-seven months by previously trained teachers. Comparison groups met the assumption of homogeneity of regression for 10 of the 11 dependent variables. Results from four auxiliary studies indicated that uncontrolled effects of pretesting, history and maturation on posttest scores were small.

Table 2

Summary of Findings for Each Creativity Hypothesis, Indicating Significant Differences and Their Direction

	H1 Treatment (T)	H2 Grade (G)	H3 SES (S)	H4 TxG	H5 TxS	H6 GxS	H7** TxGxS
Verbal							
Fluency	S	9	M	S9*	SM	9M	
Flexibility	S*	9*	M*	S9	SL	9M*	
Originality	S	5*	M*	S9	SM	9M*	
Figural							
Fluency	S*	5*	M	S9*	SM*	5M	
Flexibility	S*	5*	M	S9	SM*	5M*	
Originality	S	5	M	S5	SM*	5M	
Elaboration	S*	9	M*	S9	SM*	5M	
Abs. Titles	S	9	M*	S5	SM	5M	
Unusual Per.	S	9	M	S5	SM	5M	
Creative St.	S*	9	M*	S5	SM	9M	

*$p < .05$ M = Middle socioeconomic status
S = SALT L = Low socioeconomic status
** No significant second order interactions were found. Direction of differences are not indicated.

SALT significantly increased creativity as measured by five variables: verbal flexibility, figural fluency, flexibility and elaboration, and the number of creative strengths. The direction of differences favored SALT for all 10 dependent variables. Significant differences in creativity were found favoring fifth graders on verbal originality, figural fluency and flexibility, while a difference favored eighth-ninth graders for verbal flexibility. The direction of differences due to SES favored middle SES subjects for all 10 measures of creativity, five of which were significant: verbal flexibility and originality, figural elaboration, abstract titles, and creative strengths. Nine first order interactions were found involving treatment, grade and SES. They are displayed in columns H2 and H3 of Table 2, and indicate significant interactions between the experimental treatment and fifth graders, and also between the treatment and middle socioeconomic status students.

Data on student absences were collected during the first project year for an eighth grade low-socioeconomic status SALT teacher and from a comparison teacher in the same school. Three days in the school year (April 21, 22, 25, 1977) were selected to be well away from sickness epidemics and from holidays and/or spring vacations. The absenteeism rate was significantly less ($p < .05$) for the SALT students on all three days. The overall absenteeism rates for the three days combined were SALT, .089, and control, .213. Thus, the SALT students were absent from school less than half as much as students in the conventionally taught classes. While these data are meager, they do tend to provide indirect support that students like SALT classes and they show this enjoyment by coming to class more often.

In addition to the BSQ, another affective measure, the Levenson IPC locus of control (previously described) was administered by teacher number 10 and 15 during 1976-77 and by teacher number 15 alone during 1977-78. Both teachers showed one significant improvement on the three Levenson scales by SALT students during the first project year. The class taught by teacher number 10 showed a significant improvement in the Levenson "people" scale; that is, the students felt at year-end that other powerful people controlled them less ($p < .05$) than did the control class students. For teacher number 15, there was significant improvement in the Levenson "internal" scale in favor of the SALT group; that is, the SALT-taught students felt more ($p < .05$) in control of their own destiny at year-end than did the students in the control class. Teacher number 15 also administered the Levenson scale during the second year but found no significant results on any of the three scales. His different research design (Dr. Jekyl - Mr. Hyde) may have contributed to lack of results.

Thus, the Levenson data followed the pattern set by the BSQ data. That is, the majority of the first year comparisons (four) indicated no significant differences between SALT and control groups, while the two differences that did occur favored SALT. Second year data indicated no significant differences at all, thus replicating that stand-off situation of the BSQ analysis in which most comparisons were insignificant while the

significant comparisons were equally divided between SALT and control classes.

Discussion

Readers familiar with the snail's pace at which change occurs in U.S. public school education can appreciate the enormity of the undertaking and the perhaps naive ambition represented by the 1976-78 Iowa SALT project. Consider the demands placed upon participating teachers: After a 120-hour (only 40 hours for some) training period covering a wide variety of topics, many of which deserved at least one full college course, the teachers were expected to:

1. Accept the proposition that suggestion is a powerful, but usually only inadvertently-used tool which is capable of freeing students' minds for higher levels of achievement.

2. Install and regularly carry out an instructional cycle which contained unfamiliar activities (e.g., the relaxation/visualization/music review) together with other activities with which they were somewhat familiar, but had little real facility (most people would agree that a *good* teacher *should* conduct interesting lessons which motivate students through the use of the fine arts....but how many teachers actually *do* that?).

3. Accomplish this without appropriate materials, with a relatively small amount of training, and during the first project year, with little administrative support.

4. Be judged on a student output (measured achievement) basis, rather than by the evasive mutterings characteristic of most educational evaluations.

Fortunately, the project teachers were mostly veteran, only two were in either their first or second classroom year. They were, in general, good disciplinarians, had firm command of their subject matter areas, had sufficient professional dedication to attempt real change in their teaching styles, and had principals who approved of their efforts.

Given recognition of the hard work expended in advancing this far, the obvious question is, what next? Even though the advantages of SALT over conventional instruction have been demonstrated, what does it take to do more than that? Statistically significant results are fine, but what about tapping the mind's reserves...what would it take to make SALT classes really take off and fulfill their potential in terms of leaving the rest of educational technology far behind?

The authors feel there are four major factors involved in the expansion and refinement of SALT.

1. A realistic appraisal on the part of any SALT project administrator concerning the facilitation of change in teacher behavior, together with a management plan for incorporating such change at an optimal rate.

2. Extensive professional training for teachers in the integration of the fine arts (art, music, and drama) into a positive-suggestive teaching

style.

3. Lesson materials developed specifically for SALT classes which ease the burden of installing new teaching methods.

4. Further research into the details of the two parts of the review (active and passive session) portion of the SALT cycle.

Until these concerns are fully met, it is entirely possible that SALT may be classified as just another good idea that serves better than most when one works hard at it, rather than being recognized as the combination of techniques which enables the promise contained in Lozanov's elegant theories to be fulfilled. It is the hope of the authors that the best minds in North American educational research will be attracted to the task of refining the use of suggestion as a teaching tool, leaving more pedestrian issues aside.

Conclusions

These conclusions, based primarily on second year data, seem appropriate for SALT:

1. There is justification for the claims of SALT as an improvement over conventional methods of instruction. Seven of ten SALT classes did significantly better ($p < .05$) than their controls on achievement while another SALT class approached ($p < .08$) accepted statistical standards of significance. The SALT and control classes were equal in their effect on student attitudes.

2. SALT apparently worked equally well at both the low and mid socioeconomic stratum. There were no differences in the efficacy of SALT between elementary school and junior high classes.

3. Creativity was significantly enhanced in several classrooms and classroom attendance improved in the one classroom where studied by the use of SALT.

4. Further refinement of SALT should be based upon improved management systems, training emphasis upon the fine arts, creation of appropriate materials, and further research into the review (active and concert sessions) SALT cycle segment.

5. The SALT method is progressing through its developmental stages on schedule, and already deserves wider application in the public schools. Present evidence demonstrates its effectiveness in central Iowa public schools.

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Improving Lecturer Performance Through Confidence Building

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Abstract

Forty lecturers at Universities and Colleges of Advanced Education were divided into two groups, one of which experienced a therapeutic treatment designed to increase their self-confidence, while the other acted as a control. This treatment consisted of relaxation training, positive suggestion and success imagery. Self-report measures were collected before and after treatment, these reflecting a significant increase in the experimental group's self-confidence. Students taught by the lecturers were asked to evaluate the quality of the teaching they received pre- and post-treatment. This measure also indicated definite improvement on the part of the experimental group, with a strong correlation observable between the self-report and student evaluation scores. Implications for improving teaching performance in higher education are discussed.

Introduction

University teachers are anxious, particularly in the early years of their careers. Such is the finding of King (1973) in her study of academic staff at eighteen universities in the British Isles. Not a surprising conclusion, really, for most of us are anxious to some extent when embarking upon a new career. However, King has suggested that such anxiety, particularly when generated by the formal lecture situation, interferes with teaching performance, and that efforts should be made to help "new" staff members to cope with their self-doubts.

One possible means of accomplishing this end has been outlined in a previous article (Stanton, 1978). The technique used involved relaxation training, positive suggestion, and success visualization, a combination which has proven to be extremely successful in a variety of therapeutic contexts (Stanton 1975a, 1975b, 1975c, 1977a, 1977b). When employed with tertiary level teachers and teacher trainees, as it was in the study referred to above, the positive suggestions relate to increased energy levels, improved physical and mental health, ability to cope with problems, increased calmness, personal well-being, feelings of contentment, increased self-confidence, and improved concentration. Details of a script available for such ego-enhancement are available in Stanton (1975b). Success visualization involved the subjects imagining themselves in the lecturing situation, "seeing" themselves performing in the way they would like to perform. In the three studies conducted, 36 of the 48 lecturers or trainee teachers who experienced the experimental treatment showed gains on a self-report Confidence Scale. Of the 30 control group subjects, only six recorded such a gain, while three reported a decreased confidence level. The scale used is set out below.

Confidence Scale

Instructions:

Each of us has a picture of ourself as a person, usually reflected in terms of common personality characteristics. The scale set out below is an attempt to translate one such characteristic into measureable terms. What we would like you to do is to circle the number on the scale which you feel would provide the best description of your level of *confidence about yourself as a teacher*.

For example, you may feel that the statement: "I have complete confidence in myself as a teacher" describes you very well, so that in this case you would circle 10. Alternatively, you may feel that you are neither "completely confident" nor "completely lacking in confidence", but that you are closer to the former description than the latter. In this case you might circle 7 or 8. Try to be as frank as possible for there are no right or wrong descriptions.

1 2 3 4 5 6 7 8 9 10

I have absolutely no confidence in myself as a teacher

I have complete confidence in myself as a teacher

The Present Study

The investigation reported in this article was designed to extend this earlier work, primarily through the provision of an additional measure. Though self-reports may be subject to criticism, there does exist a strong body of opinion that the best way to find out about a person is to ask him (e.g. Allport, 1960). Face valid measures, such as the Confidence Scale, which are quite open in their intent, perform such a function and often provide more meaningful data than that provided by more purpose-concealed inventories (Stanton, 1972). However, in the previous studies, behavior was the problem. Although most subjects reported increased self-confidence and lessened anxiety about teaching, there existed no evidence that this change was reflected in improved teaching performance in lecture room or classroom. Accordingly, it was decided to make use of another source of information. Students were asked to evaluate their lecturers before and after the experimental treatment.

Whether students are able to provide an accurate evaluation of the quality of teaching they receive has been oft-debated (e.g., Flood-Page, 1974), but that is not really the issue in the present context. What students *are* able to do is give information as to their reactions to their teachers. This does not have to be accepted as an unfailingly valid statement about what the teaching was actually like, only as a statement of how they, the students, experienced it. This perception is very

important, for it is the students' attitude toward the instruction they are receiving which, to a great extent, determines how well they will learn (Mager, 1968). If student evaluation of a particular lecturer before and after his experimental treatment remains constant, this would suggest the relaxation-suggestion-visualization approach (RSV) was ineffective in modifying his teaching behavior. Even if the lecturer concerned felt more self-confident and less anxious, a valuable outcome in itself, it could not be claimed that this change was reflected in better teaching performance if students were unable to regognize such improvement.

Use of student evaluation, then, should be of value in providing a measure of the postulated link between the internal state, increased self-confidence, and the external behavior teaching performance. Perhaps other measures of teaching behavior may have been preferable, although the empirical evidence would suggest students as the best source of information available (Austin & Lee, 1967; Costin et.al. 1971; Hildebrand et.al. 1971). Once the decision to use student evaluation was made, it became necessary to select an appropriate instrument from among the large number available. As students were not being asked to identify ways in which their lecturers were better, only whether their teaching performance had changed, a simple ten-point scale with descriptions at either pole seemed likely to produce useable results. Such a scale also ensured direct comparability with that used for the self-report of confidence.

Student Evaluation of Teaching Scale

Instructions

Consider your lecturer .....(name inserted here). Place a circle around the number on the scale below which you feel best represents your evaluation of the quality of his teaching performance. For example, if you feel he is a superb teacher, you would circle the number 10. If you feel he is just a little better than average you would circle 6. Conversely, if you feel he is a rather poor teacher you would circle 2 or 3. Your name should not appear on this evaluation form and your honest opinion would be appreciated.

1 2 3 4 5 6 7 8 9 10

His teaching performance is extremely poor

His teaching performance is really excellent

Subjects & Experimental Design

The 40 subjects who took part in the study were all teaching within tertiary institutions, either a university or a College of Advanced Education. Thirty-two lecturers were male and eight were female. All were relatively new to teaching, their experience ranging from one to

four years.

Subjects were matched in pairs on the basis of their Confidence Scale scores, with members of each pair being allocated at random to one of two groups. The first of these was the experimental group which was exposed to the RSV treatment of four half-hour sessions held at weekly intervals. The second group acted as a control, also attending four half-hour sessions spaced over a four week period. These were spent in discussing the problems of higher education.

Results

No distinction has been made between lecturers in terms of sex or length of teaching experience as significant differences did not emerge on these variables. Table 1 embodies the pre- and post-treatment scores.

Table 1

Mean scores and standard deviations on the Confidence Scale for two matched groups of tertiary teachers, one experiencing four treatment sessions and the other none (n = 40).

	Confidence Scales Scores	
Group	Pre-treatment	Post-treatment
Experimental	5.7 (0.92)	6.6 (0.83)
Control	5.7 (0.92)	5.9 (0.93)

The score of the experimental group is significantly higher than that of the control group ($t = 3.20$, $df = 19$, $p < .01$), indicating the influence of the four treatment sessions in raising the self-confidence level of its members. In addition, 14 of the 20 subjects recorded an increased Confidence Scale score. No member of the experimental group scored himself or herself lower after the treatment than before. The control group post-experiment scores indicated a higher self-report of confidence for six members and a lower one for four members. This increased self-confidence level of the experimental group seems also to have been reflected in improved teaching performance. Table 2 presents the data produced by the student evaluation form.

Table 2

Mean scores and standard deviations on the Student Evaluation of Teaching Scale for two matched groups of tertiary teachers, one experiencing four treatment sessions and the other none (n = 40).

	Student Evaluation of Teaching Scale Scores	
Group	Pre-treatment	Post-treatment
Experimental	5.3 (0.90)	6.2 (1.14)
Control	5.4 (0.93)	5.5 (0.76)

Once again the RSV treatment group scored significantly higher than the control group ($t = 2.60$, $df = 19$, $p < .02$) with improvement being shown by 11 of the 20 members. No experimental group subject was evaluated as teaching worse after treatment than before. Comparable figures for the control group were four improvements and three declines.

When the scores on the two measuring instruments were correlated, a strong positive relationship was observed. The Pearson product moment correlation between pre-experimental scores was 0.74 and that between the post-experimental scores of the RSV treatment group was 0.80. It would seem that students' evaluation of their lecturers' teaching performance agreed quite well with the lecturers' subjective estimate of their own self-confidence level.

Discussion

The results of this study provide confirmation for the earlier finding that the RSV treatment method is an effective means of increasing lecturers' self-confidence. It would also appear that this increased self-confidence is reflected in improved teaching performance as measured by student evaluation. Work currently in progress is attempting to identify the particular aspect or aspects of the teaching performance which benefits from increased lecturer self-confidence. If this can be accomplished, the specific ego-enhancing instructions used may be more closely tailored to the desired end product.

Normally improvement of teaching at the tertiary level is seen as a function of increased experience with some slight concession being made to the in-service training provided by Staff Development Centers. The present study would suggest the existence of a viable alternative, one which has long been successful in the therapeutic field. It has the advantage of being both quick, requiring only a four week period, and very pleasant for the lecturer concerned. Not only does his confidence as a teacher increase, but he normally experiences improvement in many aspects of his daily living. In particular, his ability to cope with everyday problems in a calm, confident, relaxed and happy manner is enhanced so that he is likely to enjoy his life more fully.

It is interesting to note, in fact, the similarity between teaching and therapy. Just as a teacher cannot do a student's learning for him, a therapist cannot do a patients "growing" for him. The teacher creates an environment which helps the student do his own learning while the therapist assists his patient to change in the way or ways he, the patient, wishes. In the present case, an anxious self-doubting lecturer who wishes to become more confident would seem able to achieve this change quite rapidly through the use of relaxation, positive suggestion, and success imagery. Such a marriage of therapy and teaching appears worthy of further investigation, particularly in the promise it holds for improving the standard of teaching at the tertiary level.

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Teaching French Composition through Suggestopedia

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Abstract

This is a short report about an experiment using suggestopedia in a beginning French class at McGill University in Canada. A brief summary of the structure of classes is given along with a few results and comments made by the students.

Introduction

My first experience with suggestopedia dates back to 1975 when I taught French to 12 beginners at the French Summer School of McGill University. I had received my training in Ottawa by the team of Gabriel Racle at the Public Service Commission. The results had been very encouraging and a similar course has been taught at the French Summer School every summer since with continued success.

If we consider ease and fluency in the language as our main objectives with beginners, the suggestopedic class is unparalleled. The task remains, however, to adapt the suggestopedic principles to the teaching of composition to students who already have a fair command of spoken and written French, and this within the normal schedule of the academic year. This was the purpose of our experiment.

Description of Instructional Method

As we know, the first level of the suggestopedic course is already well structured and organized with dialogues and well defined stages. These served as a model for the organization of our composition course.

1) *The texts* The first text was in the form of a 13 page dialogue with full translation on the right. The scene was taking place in a travel agency. The dialogue was followed by 4 short stories of 7, 9, 10 and 34 pages. The translation on the right side was limited to the more difficult passages for the first three short stories. The last one did not have any translation and the right side of the page was left blank.

The last text was a book: *Le petit prince*, by Saint-Exupery. We used the Canadian educational edition which contains an introduction, footnotes, a "questionnaire" and a "vocabulaire" at the end. This time the text was not broken up in groups of three.

Besides these texts the students had been advised to purchase a French dictionary similar to "Le petit Larousse" a "Dictionnaire des difficultes grammaticales" and a dictionary of the French verbs.

2) *Presentation* The instructor read the text aloud and made sure the meaning was perfectly clear. Comments were made on vocabulary, grammar and style. The students were encouraged to ask questions which they often did. The grammar was reviewed and expanded as we were exploring the texts but there was no formal grammar lesson as such.

3) *Active session* Music was not used during the active session. The text was read, using the three different types of intonation, but the

English translation was not given.

The active session was abandoned after the third short story when the text grew longer.

4) *Passive session (concert)* The passive session was kept throughout. The music played was that chosen for the first level.

5) *Activation* This phase of the course constituted the main obstacle. It would be easy to organize situations in which the texts under study would be acted out with students practising their writing skill during the class hours. But this, obviously, would be too time consuming and totally impracticable with our limited schedule.

We therefore chose to assign a weekly composition, two pages minimum, whose subject was either related to the text being studied or chosen by the student himself.

These assignments were corrected and handed back to the class and the mistakes were openly discussed by students between themselves, as they were reading each other's papers. The instructor made general comments and supplied further information when needed.

At first, the instructor merely underlined the faulty passages and the correction was to be found by the student with the help of his classmates and of the instructor if necessary.

Later, the correction was made directly by the instructor when it was felt too difficult for the student to find it by himself.

6) *Schedule and premises* The experiment was conducted within the normal schedule of a day student. The class met twice weekly for 1 hour and 30 minutes during 26 weeks. The classroom was standard but the class was always sitting in a circle. We used an ordinary tape recorder, placed beside the instructor.

7) *Tests and exams* The first day a written test was given, using the cloze technique (a blank every seven words) which was again taken on the last day for comparison.

Tests during the course were in the form of translations of sentences, both ways, of dictations and of questions on the text.

A test on comprehension and grammar was administered in the language laboratory during the last week together with cloze tests on the texts studied.

Typical Schedule for Three Class Periods

1st period - (80 minutes)

1) *Test* - (Duration: 20 minutes)

Dictation of a passage of a short story studied the week before. The average mark has gone from 40% for the first dictation to 70% for the second. This is pointed out and used as a positive element which builds up confidence before the test.

The correction is done immediately after. Mistakes are discussed openly. Students can compare and exchange their papers. The dictation is not regarded as an instrument which reveals failures to penalize the student but as a means of eliminating future mistakes. It is a tool for growth.

2) *Presentation of a new short story* (60 minutes)

The instructor reads the text in the most artistic manner he can. Students show signs of interest and appreciation for the text, although they miss a few passages. It appears that the class reacts to the earnestness with which the story is read.

The text is then examined in detail. Students take numerous notes. The vocabulary is expanded. The grammar is always explained in relation to the meaning, never as a set of rules.

Some structures are practiced orally as students work in pairs. The

60 minutes are divided by a 5 minute break.
2nd period - (80 minutes)
1) *Presentation continued* (25 minutes)
Five minute break.
2) *Active session* (without music, using intonations)
3) *Passive session* (concert)
Short stories lend themselves well to an artistic reading. The sentences are made to espouse as closely as possible the rhythm of the music.
3rd period - (80 minutes)
1) *Test* (20 minutes)
Dictation and translation; five minute break.
2) *Written assignments* are handed in (35 minutes)
The mistakes have been underlined and students start to correct them together. The atmosphere is relaxed and joyful.

The instructor answers questions and goes from one to another. He congratulates and appears satisfied with the assignments. More often than not students find their mistakes silly and correct them with a laugh. Points of common interest are presented on the blackboard.
Assignments suggested
A column in a newspaper about:
-arts
-sports
-films
-fashion
-economics
-politics
A short story (to be continued)
A play (to be continued)
An exchange of letters between two friends
A trip around the world
A book review
3) *Folklore songs* are read, explained and sung.

Experimental Procedure

Subjects for this experiment were 21 students randomly chosen. Two other sections served as control groups.

The students were told about the experiment and the class started with 21 students. One changed course at the very beginning, one moved to Toronto, and 2 dropped out without any explanation. The experimental group was finally conducted with 17 students.

The comparison was based on the cloze test which gave the following result:

Experimental group

17 students : 52.85%

Control group

29 students : 47.98%

The reaction of the students for this programme was naturally felt to be important. In order to obtain some measure of their feeling about the suggestopedic approach a questionnaire was distributed with the following results (two questionnaires were not recovered):

Overall satisfaction with the course:

None : 1

Good : 2

High : 9

Very high : 3

Generally, comments are encouraging:

Excellent course. It was much more pleasant and free of tension compared with most courses.

Very enjoyable way to learn French. I looked forward to classes.

I found the course to be a very relaxing, pleasant way to approach learning and perfecting my French.

I would recommend it. It was enjoyable and I feel it improved my French in many areas.

The course was presented differently, but it was very effective. I enjoyed it more than the standard method.

I found this course to be very pleasant, without tension and, on the whole, effective.

As compared to my other courses and how they are presented, I found this course different and at times relaxing.

I have personally found that through this course my written French has improved quite a lot. I may not know all the rules but on the whole I feel more confident in expressing myself in French. This course was pleasant in that it was very relaxed.

Typical of the general reaction is this text:

L'autre jour j'ai realise qu'il rest seulement trois semaines d'ecole. Je me suis trouvee tres surprise a cette pensee. Le temps a passe tres vite. C'etait seulement l'autre jour que je pensais au retour a l'ecole, et maintenant soudainement, je me trouve a la fin de mon trimestre - incroyable.

Quand j'ai commence ce cours je ne savais presque rien de la langue francaise (ecrite). J'avais vraiment peur de me trouver dans un cours tres difficile et ennuyeux; mais le contraire est arrive. Quand je pense a ce cours ici, je realise que j'ai appris beaucoup. Maintenant j'ai la capacite de m'exprimer assez bien et quand j'ecris j'ai beaucoup plus de confiance. Au commemcement je pensais que c'etait impossible d'y apprendre comment ecrire une langue, sans avoir un cours traditionnel comme on en trouve dans les ecoles secondaires. Je suis contente que ma pensee etait erronee et que je peux apprendre le francais avec plaisir et facilite.

Conclusion

The cloze test shows an increase of 14.41% in the class average. These results, together with the often enthusiastic response of the

students are encouraging.

The experiment will be continued in September with two classes and we can expect even better results as we will make good use of the comments and remarks of the students.

Abstracts

O'brien, M.C. ATESOL Second Language Acquisition and Maintenance, 1974, edited by O'brien, M.C., 98 pp.

Several of the articles in this volume take a considered glance at language models and methodology, both from theoretical and practical ends. Georgi Lozanov describes the suggestopaedic method which he developed in Bulgaria and Gabriel Racle discusses its application in Canada. Renzo Titone recommends a deeper psycholinguistic analysis of the dynamics of language behaviour and proposes the glossodynamic model as the basis of an approach to language teaching. Concentrating more on the linguistic aspects of language learning, Udo Fries takes a broad view of the use of linguistics in language acquisition, while Jacqueling Boulouffe concentrates on the mechanism of analogy and discusses how the two-term process can be used for language acquisition, and the four-term analogy for language maintenance. Peter Hill takes a revised look at 'notional syllabuses', examining linguistic phenomena to discover the 'notions' underlying them.

Three papers are concerned with pracitical problems of attaining communicative competence: Philip Riley describes the work being carried out at the University of Nancy, France; Hans-Eberhard Piepho discusses the programmes being developed in the Wetzlar comprehensive schools in Germany, and Sofia Folomkina reviews the new approach to teaching oral English by fostering techniques to elicit oral speech in Soviet schools.

We are including in this volume a paper by John B. Carroll on foreign language testing which was read at the first International ATESOL conference in June 1973. It is included here because of the continued relevance of what Mr. Carroll has to say about "the art" of testing. He cannot cover the subject of second language acquisition and maintenance in a complete manner without the consideration of adequate testing procedures, and they cannot be ignored without peril to the effectiveness of new techniques and methods. As Mr. Carroll says in this article: "....the job of developing adequate foreign language tests will never be done, because it has to be done again and again as new generations of students come into our courses and as the requirements and objectives of foreign language instruction change."

Bushman, R.W. Effects of a full and a modified suggestopedic treatment in foreign language learning. Unpublished thesis, Brigham Young University, 1976(Apr.), 34 pp.

Three foreign language (Finnish) instructional treatments were administered to 41 undergraduate students: a full suggestopedic treatment, a suggestopedic treatment modified by deletion of music and easy chairs, and a conventional instructional treatment. Both of two teachers taught one class of each treatment after piloting instruction on separate students. After the treatments, students were measured on vocabulary, grammar, affect, pronunciation and communication, and group means were adjusted only by Pimsleur Language Aptitude Battery scores, language background and suggestibility scores having been found to be

non-significant predictors.

The suggestopedic groups performed generally better than the control group, and far better on the communication measure, but the two suggestopedic groups did not vary significantly from each other. The findings are variously interpretable as either supporting or not supporting the suggestopedic theory. Certain techniques of the method are however regarded as advancements in language instructional technology.

Shultz, R.A. Evaluation of the suggestive-accelerative Lozanov (SALT) method in teaching multiplication to fourth grade children with learning problems. Unpublished report, Iowa State University, 1978, 12 pp.

This study investigated the effectiveness of the Suggestive-Accelerative Learning and Teaching (SALT) method in teaching multiplication to fourth grade children ($n = 4$) with learning problems. At the end of the experiment, the SALT-taught children exhibited significant ($p < .05$) time improvement from pretest to posttest in a criterion-referenced Math test.

Pratigorski, G., J. and A. Suggestology and Super-Memory. Part I. *Bild der Wissenschaft*, 1972 (Feb.), No. 2, 107-113. Part II: *Bild der Wissenschaft*, 1972 (Mar.), No. 3, 177-183. Deutsche Verlagsanstalt Stuttgart in cooperation with the Academy of Science of the USSR in Moscow.

The phenomenon of the so called "mental block" (in German called humorously "Das Brett vorm Kopf") is an indicator of the discrepancy between the acknowledged and the actual capacity of the human brain, the "block" illustrating the barriers to learning which ought to be removed. The following article reports such attempts.

Struggles to turn the learning process into a pleasurable experience combined with a thorough approach to subject matter had failed until the Bulgarian psychotherapist, Dr. Georgi Lozanov, in his doctoral dissertation on the topic "Suggestology and Suggestopedia," had made considerable progress in this direction. *Suggestology* is a science interested in the use of suggestibility as a fundamental characteristic of the human psyche, and *Suggestopedia* is a pedagogic method based on suggestibility in the normal waking state. To counter the scepticism of modern science which, with very few exceptions, does not take *suggestion* seriously, Lozanov chose as epigraph to his book "Suggestology" the words of *Paracelsus*: "Nobody has the right to negate a science he does not know."

In this connection three questions arise:

1. Why, in spite of prejudice, does the idea of suggestion still arouse interest?
2. In which way did this interest enter into the psychotherapeutic concepts of our century?
3. Why does man not become a helpless toy of this blind power?

Aarons, L. Observations on psychological research in Bulgaria. *Catalog of Selected Documents in Psychology*, 1976, 6, 29 (Ms. No. 1222).

The U.S. National Academy of Sciences and the Bulgarian Academy of Sciences in November, 1971, agreed on a bilateral scientific exchange program to promote the interests of international scientific cooperation. In March, 1975, the author visited Sofia, Bulgaria as the first U. S. representative in the field of psychology. Ongoing research activities and interests of scientists at ten different laboratories are described. In general, psychology in Bulgaria is guided by potential applications within Bulgarian society. Although much of their efforts follow Soviet psychology, they are increasingly aware of and open to developments in Western psychology. It is hoped that this report will provide an impetus for correspondence between American and Bulgarian psychologists leading to collaboration on problems of mutual interest. The report denotes 3 pages to Lozanov and the Research Institute of Suggestology.

ERRATA

1) The acknowledgment to the Schuster & Ginn 9th grade science SALT research report was unintentionally ommitted in *JSALT*, 1978, 3(1), 16. It should read: "This study was supported financially under a research grant from the Iowa Department of Public Instruction and administered through Heartland AEA-11. Grateful appreciation goes to the many people who helped on this project."

2) These additional references were received too late to include with Dr. F. Beer's article in *JSALT*, 1978, 3(1), 21:

Balevsky, P. EEG changes in the process of memorization under ordinary and suggestive conditions. *Suggestology and Suggestopaedia*, 1975, 1(1), 26-35.

Bollnow, cited in: Boeck, W. *Perspektiven f.d. letzte Drittel d.20. Jahrhunderts*. Stuttgart: Kohlhammer, 1971.

Bollnow, cited in: Giel, K. *Allgemeine Padagogik*. Freiburg: Herder, 1976.

Bollnow, cited in: Lotzmann, G. *Das Gesprach in Erziehung und Behandlung*. Heidelberg: Quelle & Meyer, 1973.

Bollnow, cited in: Pongratz, L. *Padagogik in Selbstdarstellungen*. Hamburg: Meiner, 1975.

Lozanov, G. Einfuhrung in die Suggestopadie (Introduction into Suggestopaedia). Typed instructions for the teachers participating in the experiment, 1976.

Ornstein, R.E. The psychology of consciousness (Die psychologie des bewusstseins). Koln: Kiepenheuer & Witsch, 1974.

Vierlinger, R., quoted in: Hurlock. *Materialien zur Padagogik, Unterrichtswissenschaft-Unterrichtslehre II*. Wien: Jugend & Volks, 1975.

Announcements

The fourth International SALT and Suggestology Conference is scheduled for April 27-29, 1979 at Iowa State University. For further information write: SALT, Conferences and Extension Division, Scheman Building, Iowa State University, Ames, Iowa 50011. Researchers and teachers will report.